



# ज्ञान गरिमा सिंधु

(त्रैमासिक पत्रिका)

संयुक्तांक 70-71

अप्रैल-जून एवं जुलाई- सितंबर, 2021

(राष्ट्रीय शिक्षा नीति विशेषांक)



वैज्ञानिक तथा तकनीकी शब्दावली आयोग

शिक्षा मंत्रालय

(उच्चतर शिक्षा विभाग)

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COMMISSION FOR SCIENTIFIC AND TECHNICAL TERMINOLOGY  
MINISTRY OF EDUCATION  
(DEPARTMENT OF HIGHER EDUCATION)  
GOVERNMENT OF INDIA

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### नयी शिक्षा नीति का संवैधानिक संदर्भ: एक विश्लेषण

डॉ. अखलाख अहमद  
सहायक प्रोफेसर  
राजनीति विज्ञान विभाग  
ए.एस. कॉलेज, बिक्रमगंज, रोहतास  
(बिहार)

शिक्षा का उद्देश्य समय विकास है, और नयी शिक्षा नीति इस कसौटी पर खरी उतरती है। यह कोई पह अवसर नहीं है जब शिक्षा के उद्देश्यों को सामाजिक सांस्कृतिक एवं संवैधानिक मूल्यों के अनुरूप समावे बनाने की पहल की गयी है। स्वतंत्रता प्राप्ति के बाद से ही इस दिशा में निरंतर प्रयास होते रहे हैं। शि के संदर्भ में नीतियाँ समय-समय पर प्रतिपादित, परिवर्धित एवं परिमार्जित होती रही हैं। स्वतंत्र भारत पहली शिक्षा नीति 1968 में कोठारी आयोग की सिफारिश पर आयी। तत्पश्चात् 1976 में शिक्षा के क्षेत्र एक महत्वपूर्ण एवं क्रांतिकारी परिवर्तन 42वें संविधान संशोधन के द्वारा हुआ। 1986 में राष्ट्रीय शिक्षा नी बनी जिसमें आंशिक परिवर्तन 1992 में किया गया। इसी कड़ी को आगे बढ़ाते हुए वर्तमान सरकार ने 1 1917 में वैज्ञानिक 'के.कस्तूरीरंगन' की अध्यक्षता में समिति बनायी जिसने 'राष्ट्रीय शिक्षा नीति 2020' प्रारूप तैयार किया। प्रस्तुत प्रारूप पर व्यापक विचार-विमर्श के बाद 29 जुलाई 2020 को केन्द्रीय कैबिनेट द्वारा स्वीकृति प्रदान की गयी।

आज के वातावरण में शिक्षा की क्षुधा सभी को है। महानगर के ऊँची अट्टालिकाओं में रहने वाले लोग तरह ही ग्रामीण क्षेत्र में निवास करने वाले लोग भी शिक्षा की महत्ता को भली-भाँति समझ चुके हैं। इस क्षु की पूर्ति के लिए क्या न्यायोचित कदम उठाये जाएं, इसी पृष्ठभूमि में 'नयी शिक्षा नीति-2020' का अनुमोद हुआ। इस नीति की सबसे बड़ी चुनौती है- इस क्षेत्र में व्याप्त 'अवसर की असमानता' की समाप्ति, जिसे ल मेरिट की असमानता कहते हैं, उसे वास्तव में 'अवसर की असमानता' के रूप में देखा जाना चाहिए। आर्थि रूप से सम्पन्न परिवार अपने बच्चों का नामांकन शहर के अच्छे विद्यालयों में कराते हैं, वहीं ग्रामी पृष्ठभूमि के लोगों को यह अवसर उपलब्ध नहीं होता। ऐसे में दोनों प्रकार के छात्रों में जो मेरिट भिन्नता पायी जाती है, सही मायने में वह 'अवसर की असमानता' है। अतः नयी शिक्षा नीति से इस भेद-स की समाप्ति की अपेक्षा है।

किसी भी नीति को क्रियान्वित करने में एक बड़ी समस्या वित्त सम्बंधी होती है। हालांकि इस प्रारूप में सकल घरेलू उत्पाद के 6 प्रतिशत शिक्षा पर व्यय करने की बात की गयी है। पूर्व की नीतियों भी 6 प्रतिशत व्यय की बात की जाती रही है। सरकार इस पर कहाँ तक पहल करेगी एवं राज्य सरकार इस खर्च के लिये वित्त का प्रबंध करने में सफल होगी या नहीं यह भविष्य के गर्भ में है। यह सं इसलिए प्रबल है कि प्रायः राज्य सरकारें वित्त का रोना रोती हैं। केन्द्र एवं राज्य सरकार के बीच समन्व की आवश्यकता इस नीति के सफलता का आवश्यक शर्त प्रतीत होती है।



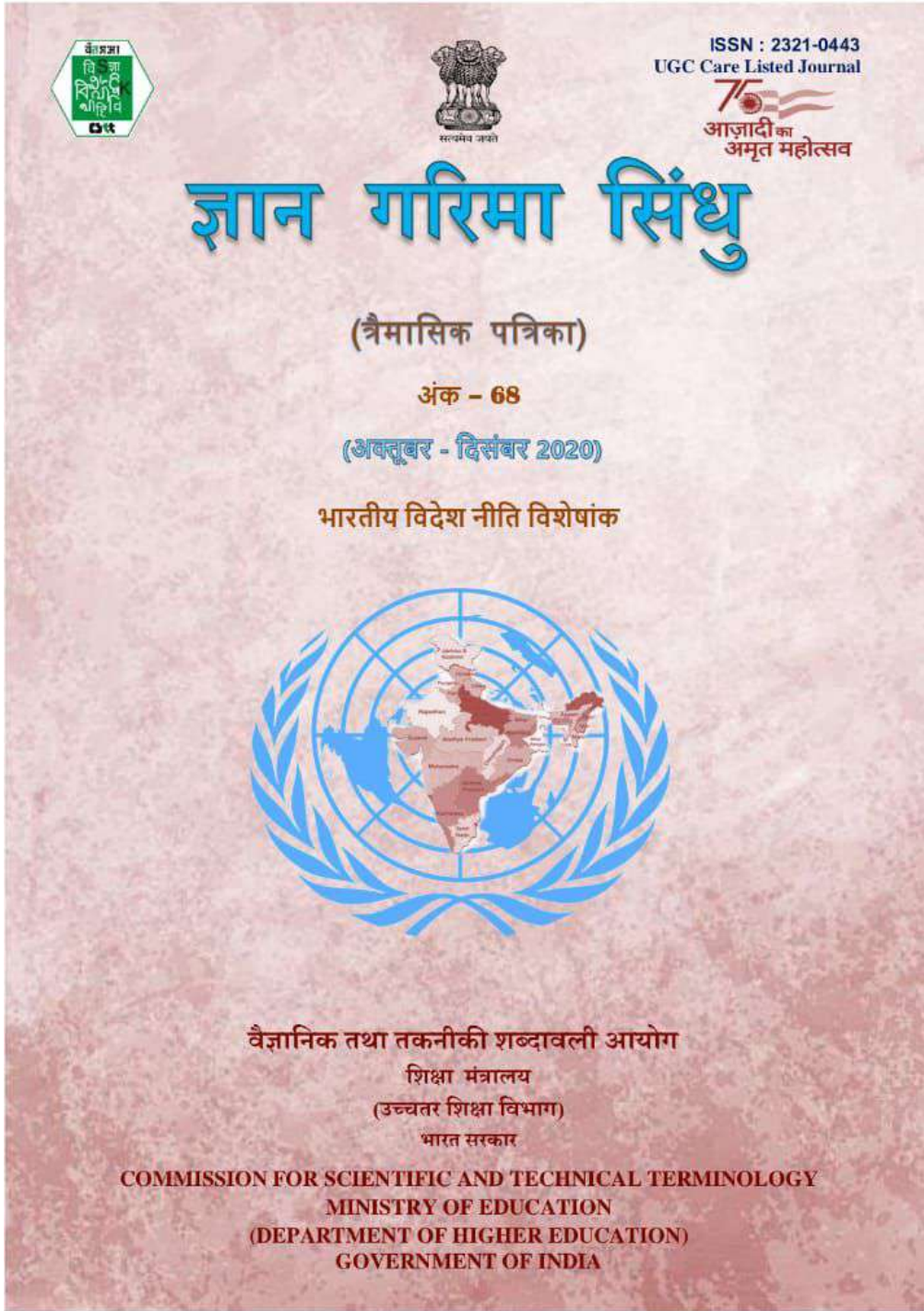
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अस्मिता के अनुरूप शिक्षा नीति को मूर्त रूप देने में असफल रहे हैं। नयी शिक्षा नीति भारत को विश्व के रूप में स्थापित करने के मार्ग में 'मील का पत्थर' साबित हो ऐसी कामना है ताकि अपनी परिस्थितियों अनुरूप शिक्षा को उन्मुख किया जा सके एवं पिछलग्गू बनने की प्रवृत्ति को त्याग कर मौलिकता की दि में कदम बढ़ाया जा सके।



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## भारतीय विदेश नीति के सामयिक आयाम

डॉ. अखलाख अहमद  
सहायक प्रोफेसर  
राजनीति विज्ञान विभाग  
ए0 एस0 कॉलेज,  
बिक्रमगंज, रोहतास (बिहार)

अंतर्राष्ट्रीय पटल पर प्रत्येक राज्य अपने राष्ट्रीय हितों की सुरक्षा के लिए विदेश नीति का निर्धारण करते हैं। विदेश नीति और राजनय को अंतर्राष्ट्रीय सम्बंधों की संचालन की प्रक्रिया के यान के दो पहिये कहा जाता है। सभी देशों के लिए राष्ट्रीय हित का दायरा अलग-अलग होता है, फलतः विदेश नीति के सिद्धांत भी परिस्थिति के अनुरूप भिन्न-भिन्न होते हैं। भारतीय विदेश नीति के मुख्य सिद्धांत-राष्ट्रों की समता, क्षेत्रीय अखण्डता, अन्य देशों के साथ मैत्रीपूर्ण सम्बंध, विवादों का शांतिपूर्ण समाधान, शांतिपूर्ण सह अस्तित्व, विश्व शांति और सुरक्षा को प्रोत्साहन, गुटनिरपेक्षता, अंतर्राष्ट्रीय कानून एवं संस्थाओं का समर्थन आदि हैं। ये सिद्धांत संयुक्त राष्ट्र संघ चार्टर के साथ-साथ भारतीय संविधान द्वारा भी समर्थित हैं। संयुक्त राष्ट्र संघ के चार्टर में वर्णित उद्देश्य हैं- अंतर्राष्ट्रीय शान्ति एवं सुरक्षा कायम रखना, अंतर्राष्ट्रीय विवादों का शांतिपूर्ण समाधान करना; सामाजिक, आर्थिक, सांस्कृतिक एवं मानवीय क्षेत्रों में अंतर्राष्ट्रीय सहयोग को प्रोत्साहित एवं पुष्ट करना। भारत के संविधान के अनुच्छेद 51 में कहा गया है कि राज्य (I) अंतर्राष्ट्रीय शान्ति और सुरक्षा की अभिवृद्धि का, (II) राष्ट्रों के बीच न्यायसंगत और सम्मानपूर्ण सम्बंधों को बनाये रखने का, (III) संगठित लोगों के एक-दूसरे से व्यवहारों में अंतर्राष्ट्रीय विधि और सन्धि-वाध्यताओं के प्रति आदर बढ़ाने का और (IV) अंतर्राष्ट्रीय विवादों को मध्यस्थता द्वारा निपटाने के लिए प्रोत्साहन देने का प्रयास करेगा।

शीत युद्ध के दौरान दुनिया दो गुटों में बंट गयी। एक का नेतृत्व पूंजीवादी अमेरिका तथा दूसरे गुट का नेतृत्व सोवियत संघ ने किया। दोनों गुट के बीच तनाव व विश्व के विभिन्न क्षेत्रों में प्रभाव के लिए प्रतिद्वन्द्विता तथा यदा-कदा तनाव शैथिल्य की प्रतियोगिता चलती रही। ऐसी परिस्थिति में भारत द्वारा सैनिक गुटबंदी से अलग रहकर स्वतंत्र विदेश नीति अपनाने का फैसला किया गया, जिसे गुटनिरपेक्षता की नीति कहा जाता है। हालांकि आरंभ में शीतयुद्ध की पृष्ठभूमि में जन्म के कारण इस नीति को गुटों से अलग रहना समझा गया, जो कि भ्रमक अर्थ है। यह नीति गतिशील एवं आवश्यकतानुसार दोनों गुटों से सहायता लेने में विश्वास रखती है। इस नीति का मूलमर्म है- 'विदेश नीति मामले में स्वतंत्रता'। गुटनिरपेक्षता का अर्थ है- शीत युद्ध का विरोध, सैन्य तथा राजनीतिक गठजोड़ और शक्ति-गुटों से दूर रहना तथा अंतर्राष्ट्रीय सम्बंधों में स्वतंत्रतापूर्वक कार्य करने की नीति अर्थात् राष्ट्रीय हित तथा वैश्विक समस्याओं पर स्वतंत्रतापूर्वक निर्णय लेना यह एक सिद्धांत है, जो अंतर्राष्ट्रीय शांति तथा सुरक्षा को महत्व देता है और इसके लिए शीत-युद्ध तथा सन्धियों में निर्लिप्तता की वकालत करता है।

गुटनिरपेक्ष आंदोलन ने भारत को विकासशील देशों का नेतृत्व करने का मंच प्रदान किया। इसके माध्यम से उपनिवेशवाद, रंगभेद की नीति, बड़ी शक्तियों द्वारा हस्तक्षेप, शस्त्रों की दौड़ नव-उपनिवेशवाद, विश्व राजनीतिक व अर्थव्यवस्था के केन्द्रीकरण आदि के विरुद्ध आवाज उठाने का प्रयास किया गया। बदलते परिवेश में गुटनिरपेक्ष आंदोलन ने 1970 के दशक में 'समता एवं न्याय' पर आधारित अंतर्राष्ट्रीय अर्थव्यवस्था की मांग कर अपने आर्थिक एजेण्डे को मूर्त रूप दिया। आज इबसा (IBSA) तथा ब्रिक्स (BRICS) जैसे संगठनों द्वारा विकासशील देशों के बीच 'दक्षिण-दक्षिण सहयोग' तथा अंतर्राष्ट्रीय वित्तीय संस्थाओं जैसे अंतर्राष्ट्रीय मुद्रा कोष, के लोकतंत्रीकरण की मांग जो उठाई जा रही है वे मांगे लगभग 40 वर्ष पूर्व ही गुटनिरपेक्ष आंदोलन द्वारा उठाई

## *Impact of Sodium Fluoride Pesticide in the Protein Metabolism of Clarias Batrachus (Walking Cat Fish)*

**Md. Feroze Khan**

Research Scholar, Department of Zoology, V.K.S.U., Ara

**Dr. S.S. Bhaskaran**

HOD, Department of Zoology, A.S. College, Bikramganj, Rohtas

**Dr. Md. Faiz Ahmad**

Asst. Prof., Department of Education, Patna

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### **Abstract**

*Clarias batrachus* commonly known as walking cat fish exposed to toxicant sodium fluoride with lethal and sub lethal concentration for 72 hours and 21 days.

**Keywords :** *Clarias batrachus*, lethal, sub lethal and toxicant.

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### **Introduction**

*Clarias batrachus* the walking cat fish is air breathing cat fish generally found in south east Asia. The ability to walk across dry land in search of suitable habitat or food the name walking cat fish is coined. This fish primarily lives in stagnant water in pond and in slow moving streams and river water. Its walking skill allows the fish to move other habitats. *Clarias batrachus* is of great importance of aquaculture and economic values as food in almost all over India. To resolve the problem of mal nutrition we have attempted to improve quality of food in all over the world. For this we use fertilizer for plant growth and use of pesticides insecticides to protect plants from pest are also used. By this measurement productivity is enhanced but environment pollution is also produced. These chemicals have entered into the ecosystem of water and cause water pollution and threatened the aquatic life and physiological characters of fish.

Certain chemicals affect the fish and retarded the respiration. The changes in biochemical content in fish is due to toxic effect of different heavy metals and pesticides. Saxena et al (1989), Khan et al (1992), Vivek and Sharma (1999).

Rawat et al (2002) reported the toxic effect of pollutants in aquatic ecosystems. Main cause of decline of fresh water fisheries is presence of water fluoride identified by Neu hold in the year 1960. Fluoride level affect the migration in fisheries.

The main concern of high level of fluoride in water is fluoride rich minerals in rocks and soil which along with rain water reach into the water bodies and cause pollution.

It has become a serious threat to aquatic organisms. In the presence of toxicity the fresh water catfish *Clarias batrachus* is reportedly affect the protein profile of the fish.

### **Materials and Methods**

*Clarias batrachus* were purchased from local market of Bikram Ganj and kept in aquaria for a week after acclimatization. The acclimated fishes were exposed to sodium fluoride (1200 ppm lethal, 600 ppm sub lethal) for 72 hours for 21 days. Fishes were sacrificed immediately the end of exposure period. Under toxicant pressure biochemical contents are investigated and protein content was estimated by Folin phenol reagent method.

### **Result and Discussion**

After going the above experiment it is investigated that significant loss of protein at lethal concentration (18% in muscles and 48% in liver) in sublethal condition level of protein declines was noticed (6% in muscles and 28% in liver). In the case of sodium fluoride (38% in

muscles and 45% in liver) at lethal condition whereas (5% in muscles and 19% in liver) in sublethal condition.

According to Neu hold & Sigler (1960) main cause of decline trout fishery is fluoride.

Detoxification of poisonous substances is performed by liver. Hence it is expected that toxicant's detoxification and disposal are completed by liver.

Pollutants impose stress on liver, to cope stress organism requires sufficient energy obtained from protein, glycogen cholesterol etc. decrease in the protein content was observed during exposure period. The toxicity of sodium fluoride showed a direct correlation with amount of sodium fluoride and duration of exposure.

Decrease in protein may be due to energy demand in order to meet the stress condition. We all know that protein is used to repair cell and tissue organisation because of its involvement in cell membrane formations as well as cell organelles present in cytoplasm. So, decrease in protein content as a result of toxicity stress. Reduction in protein liver of *Clarias batrachus* due to decrease protein synthesis capacity liver metabolism become altered and its metabolism become changed due to toxicity stress.

Toxicant	Control	Sub lethal	Change in %	Lethal	Change in %
Sodium Fluoride	Muscles 0.312-0.045	0.0284=0.011	3.35 %	0.192=0.27	36.67 %
	In Liver 0.412-0.092	0.342=0.0112	17.08 %	0.231=0.080	43.93 %

### Conclusion

Pollutant sodium fluoride reported highly toxic but at lethal dose remarkable protein loss was reported. But at sub lethal level their toxicity was moderate.

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## CERTIFICATE OF PUBLICATION

This is to certify that the article entitled

**KARYOMORPHOLOGICAL STUDY OF PIPER ATTENUATUM HAM OF PIPERACEAE  
FAMILY**

Authored By

**Kanhaiya Singh,**

Assistant professor , Department of Botany, A.S college , Bikramganj (Rohtas), V.K.S.U, Ara Bihar

Published in

Kanpur Philosophers : **International Journal of humanities, Law and Social Sciences**

ISSN 2348-8301

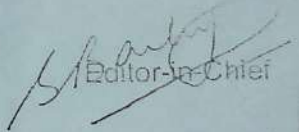
Vol. IX, Issue II(E) : 2022

UGC CARE Approved, Group I, Peer Reviewed and Referred Journal



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E-ISSN No:-2582-5836

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With Emerging Technologies" .."

Details of Published Article as follow:

Volume : 4	Year : December -2022
Issue : 12	Page Number : 85-87

  
Dr. Brijesh Pathak  
Editor-in-Chief





## KARYOMORPHOLOGICAL STUDY OF PIPER ATTENUATUM HAM OF PIPERACEAE FAMILY.

**Kanhaiya Singh**, Assistant professor , Department of Botany, A.S college , Bikramganj (Rohtas), V.K.S.U, Ara Bihar : [Kanhaiyasingh843@gmail.com](mailto:Kanhaiyasingh843@gmail.com)

### Introduction:

Piperaceae is a significant family of dicot plants mainly known as Black piper family. *Piper attenuatum* Ham is important species of this family. These species rambling and climbing on tree by its adventitious roots with soft slender glabrous branches. Upper surface glabrous and lower thinly shortly hairy specially on the nerves. Male 3-5'' bracts adnate, copular, rounded at the apex. Bracteoles slender, stemen 2-4, exerted. Female 2.5-3.5'' on slender, peduncles 5'' long, overy sessile, glabrous, fruiting spikes. Flowering August to September.

Mitosis is a cell division which reveals not only the morphological features of the chromosomes in organisms but also the distribution of euchromatic and hetrochromatic materials with in the genome presenting the back drop of rearrangement which might have taken place during the evolution of that species or taxon. The distinctness of chromosomal features during mitotic metaphase presents the karyotype (Jackson 1971). Karyotypic data comprise base chromosome number absolute chromosome type along with relative chromosome size, distribution of euchromatic and hetrochromatic section, no. and size of satellites (stace 1980). There are several methods to study and analyse the chromosomal constitution, rearrangements, evolutionary pattern and intragenic differences from karyotypic studies (Darlington and lacour 1946).

To compare karyotype of different taxa which are related or unrelated is significant to understand minor differences if karotypic study is done within same set of condition within the same time. The position of hetrochromatic section and their sizes are very important when we tend to look into the micro evolutionary changes over a time (Kumar and Sinha 1989). Without carrying out of meiosis, it would be impossible to understand correct chromosome behaviour only through going mitotic analysis. Larger chromosome have larger amount of chromatin and smaller have lesser amount of chromatin that leads to relatively different orientation and behaviour of chromosome during meiosis (Grant 1971). Chromosome behaviour through the process of meiosis has been studied in many cases for distinguish different taxa which might had arisen by creepic and large chromosomal rearrangement, mutation, polyploidy or by other structural alteration (Favarzer 1981). Since the time of Levitsky (1934), conceptual changes have taken place in karyotypic analysis (Kumar 1998).

### Materials and methods:

Mitotic study was carried out from roots tips raised from germinating seeds on moist blotting paper or on irrigated sunny surface. Roots tips were pre-treated with paradichlorobenzene from 2 - 3.5 hours at 10-15 degree celcius. Root tips were finally fixed in 1:3 acetic alcohol. Slides were made through squishing technique and stained 1.5% acetocarmine. Permanent slides were made

**STUDY OF PHYTOCHEMICAL IN MEMBERS OF PIPERACEAE FROM BIHAR AND CHHOTANAGPUR PLATEAU (JHARKHAND)**

**Kanhaiya Singh**, Assistant Professor, Dept. of Botany, A.S. College, Bikramganj, Rohtas, V.K.S.U. Ara. Kanhaiyasingh843@gmail.com

**Abstract :**

The family piperaceae belongs to the superorder Nymphaeflorae, order piperales, (Dahlgren) and comprises approximately 5 genera and 400 species. The genera piper and piperomia are the most representative of piperaceae (700 and 600 species respectively). Phytochemical investigation of piperaceaespectes in Bihar and ChhotanagpurPlateau (Jharkhand) shown the presence of Metabolities from Mevalonic acid, acetic acid and shikimic acid pathways. The most Frequentmetabolities isolated are amides. This family is closely related to chloranthaceae except in the numbers of stamens and carpels in the from of fruits. The piperaceae are unusual of dicot in their vascular anatomy by having scattered vascular bundles. According to Haines (1925) Six species of piper and one species of piperomia are reported from Bihar and Chhotanagpur Plateau in Jharkhand.

**Keywords :** phytochemical, piperaceae, metabolites shikinmic acid pathways, alkaloids, hybrid cultivar, antioxidants, organoleptic parameter, phytoconstituents, sequential extraction, crude extracts

**Introduction :**

Piperaceae is a significant family of dicot plants mainly known as black piper family. Bulk of the species belong to two genera i.e. piper and piperomia. According to haines (1925), six (6) of piper and one species of piperomia are reported from Bihar and Jharkhand Some species have medicinal values due to presence of phytochemical substance. An alkaloid is also present. This family represented by the herbs (piperomia) or shrubs (piper) and rarely by climbers (piper betle). Stem is herbaceous or woody, rarely climbing with more than one rings of vascular bundles. Flowers and small inconspicuous, incomplete, shunken in the fleshy axis of infloresense, trimerous and bracteates. Fruits are berry seeds with fleshy endosperm.

**Materials and Method :**

Microscopy, phytochemical analysis, preliminary phytochemical screening and other WHO recommended parameters for standardization were performed. Root, leaf, seed etc. is material used to extract phytochemical substances.

**Plant materials :**

The dry fruits of piper nigrum and piper cubeba were collected from local people in different district of Bihar and Chhotanagpur plateau They were washed thoroughly in distilled water and the surface water was removed by air drying undershade. The leaves were subsequently dried in a hot air oven at 40 degree Celsius for about 42 hours. Powered use for extraction.

**Preparation of Crude Extract :**

45 grams of dry powdered fruit + leaves of investigated species of piperaceae were extracted successfully with double distilled water. Ethanol and methanol (each 350 gm) for 8-10 hours through soxhletapparus method. Then collected sample were filtered through whatman no-1 filter paper. The extract were evaporated to dryness under reduced pressure at 90 degree by rotary vacuum evaporator to obtain the respective extract and store in the freeze-condition at-18 degree Celsius until used for further analysis.

**Qualitative screening of Photochemicals :-**

One qualitative screening of powderedcrude drugs for their active ingredients were carried out using the following standard procedure (Trease and Evan 1983; Indian-pharmacopies; 1996, Mukherjee, 2002).

**Phenolic Estimation :**

The total phenol content of plant extract were determined by using folinciocalteu spectrophotometric method according to the method described (kimet al 2007).

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URDU JOURNAL 13 (2022)  
A UGC CARE Listed Research Journal  
Department of Urdu,  
Patna University, Patna-5  
ISSN: 2249-7854



**NO BRANCH Ph.: 2303206**

سونے اور چاندی کے گارنٹی شدہ زیورات



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سونے اور چاندی کے  
زیورات گارنٹی کے ساتھ دیئے  
جائیں گے جس کی گارنٹی ہوگی  
اور خریدنا ہوا مال پسند نہ ہونے  
پر بلا معاوضہ بدلہ جاسکتا ہے۔

مشورہ

استعمال شدہ زیورات  
فروخت کرتے وقت ایک بار  
ہم سے ضرور رابطہ کریں امید  
کہ بازار سے زائد قیمت پر  
خریدے جائیں گے۔

عمدہ زیورات

ہر قسم کے سونے اور چاندی  
کے خوشنما ڈیزائن کے فیشن ہیل  
زیورات ہر وقت تیار ملیں گے۔  
آڈر دینے پر مطلوبہ نمونہ مقرر  
وقت پر دیئے جائیں گے۔

پروپرائیٹری: محمد سارو محمد حسین

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## ڈاکٹر صوفیہ پروین

صدر شعبہ اردو انجمنیت کالج، بکریم گنج، روہتاس، بہار

# ۱۹۴۷ء سے قبل بہار میں اردو رسائل: ایک طائرانہ نظر

اردو کے تعلق سے بھی بہار کی سر زمین نہایت مردم خیز رہی ہے۔ علم و ادب کی طرح اردو صحافت اور ادبی صحافت کی جڑیں بھی یہاں مضبوطی سے اپنے قدم جمائے نظر آتی ہے۔ بہار میں بھی صحافت کا سلسلہ اخبار سے شروع ہو کر رسالے تک پہنچتا ہے۔

بہار میں اردو رسائل کی ابتدا آزادی سے تقریباً اسی برس قبل ہوئی اور یہ بات قابل ذکر ہے کہ ادبی رسالے کے اجراء کا سہرا بھی شہر آ رہ کے سر ہے۔ آ رہ ضلع شاہ آباد سے 21 مارچ 1867 کو ”نہر الفوائد“ کے نام سے ایک رسالہ جاری ہوا۔ یہ سہ ماہی رسالہ تھا جو 25 صفحات پر مشتمل ہوا کرتا تھا۔ اس کے جاری کرنے والے مولوی سید وارث علی خان بہادر میر مجلس انجمن علمیہ تھے اور ایڈیٹر خواجہ سید فخر الدین سخن دہلوی تھے۔ رسالہ ”نہر الفوائد“ سید وارث علی اور سید فرزند احمد صغیر بلگرامی کی علمی، ادبی اور صحافتی ذوق کا آئینہ دار تھا۔ اس رسالہ میں علمی، ادبی، تاریخی اور ثقافتی نوعیت کے مضامین شائع ہوتے تھے۔ تعلیم نسواں سے متعلق مواد اور انجمن علمیہ کی رودادیں اور خبریں شائع ہوتی تھیں۔

”نہر الفوائد“ کے بعد 1871 کو گیا سے ”گلدستہ نظائر“ طلوع ہوا۔ یہ ماہنامہ رسالہ تھا اور 24 صفحات پر مشتمل تھا۔ اس کے مالک بابو امیش چندر تھے۔ اس کا سالانہ چندہ 15 روپیہ تھا۔ مطبع گلدستہ نظائر میں اس کی چھپائی ہوتی تھی۔ اس میں ادبی مضامین کے علاوہ شعراء کی تخلیقات بھی اشاعت پاتی تھیں۔

1872 کو منشی رام پرساد نے مونگیر سے ماہنامہ ”مرات الہند“ جاری کیا۔ سید شاہ عطا حسین نے 1883 کو پٹنہ سے ”گلدستہ بہار“، سید رحیم الدین نے 1885 کو پٹنہ سے ماہنامہ ”نوائے عشق“ کی شروعات کی۔ منشی حسن علی نے 1886 کو پٹنہ سے ”نوائے اسلام“ جاری کیا۔ یہ مذہبی اور دینی رسالہ تھا اس کا مقصد اسکول و کالج کے طلباء کو عام فہم زبان میں دینی و اسلامی معلومات بہم پہنچانا تھا۔ 1897 کو نصیر حسین خاں نے ماہنامہ ”ادیب“ جاری کیا۔ اس کا پہلا شمارہ جولائی 1897 کو منظر عام پر آیا۔ اس کے محض چار شمارے منظر عام پر آئے اس کے بعد یہ رسالہ بند ہو گیا۔ اسی سال بہار شریف سے ماہنامہ ”اشرف“ طلوع ہوا۔ اس کے ایڈیٹر مولوی محمد احسن سخن بہاری تھے۔ یہ علمی و ادبی رسالہ تھا، تصوف و معرفت کے موضوع پر بھی مضامین کی اشاعت کی جاتی تھی۔

بیسویں صدی آتے آتے ادبی صحافت میں نکھار اور جمال پیدا ہو چکا تھا۔ اس کے معیار و وقار میں بھی بلندی آرہی تھی۔ اس صدی کے ابتدائی دور میں جو ادبی رسائل و جرائد منصہ شہود پر آئے ان میں گیانے "نیم سحر" اس کے ایڈیٹر سید حسن مرتضیٰ اور شفیق عماد پوری تھے۔ 1903 کو پٹنہ سے سید نور الدین بلوچی نے ماہنامہ "رزق" زمانہ" کا اجراء کیا۔

خانقاہ مجیبہ پھلواری شریف، پٹنہ کا ترجمان معارف 1912 کو مولانا سید شاہ بدر الدین قادری نے جاری کیا، اس کے ایڈیٹر محمد یوسف رضوی تھے۔ معارف اردو کا مقبول رسالہ تھا، اس کے ذریعہ خانقاہ مجیبہ کی فکر و تحریک دور دور تک پہنچی، ساتھ ہی اس نے اردو زبان و ادب کی خدمت کی۔ یہ رسالہ چار سالوں تک پابندی سے شائع ہوتا رہا۔

گیانے انجم مانپوری نے 1914 میں "رہنما"، سید محمد یعقوب رحمانی نے 1921 میں مونگیر سے "الرشید"، سید محمد عبدالباری ساقی نے 1924 کو پٹنہ سے "نوید" اور دارالاشاعت علمیہ عظیم آباد نے 1926 کو عظیم آباد سے "تصویر خیال" جاری کیا۔ اس کے ایڈیٹر ضیاء الملک صدیقی عظیم آبادی تھے۔ حکیم عبدالعزیز طیب نے درہنگہ سے 1928 کو رسالہ "بشری" جاری کیا۔ اسی سال سید محمد طہ نے درہنگہ سے "پیمانہ" کی شروعات کی۔

بیسویں صدی کے نصف اول میں سال 1931 کو پٹنہ سے "بہارستان" طلوع ہوا۔ اس کے ایڈیٹر عبد الجبار وحیدی اور اصغر مجیبی تھے۔ یہ معیاری ادبی رسالہ تھا، اس میں علمی، ادبی، تنقیدی، تمدنی اور سائنسی مضامین کے علاوہ شعراء و ادباء کی تخلیقات شائع ہوا کرتی تھیں۔ اس کا بنیادی مقصد صوبہ بہار کے تعلیم یافتہ طبقہ میں پاکیزہ ادب کا صحیح ذوق پیدا کرنا تھا۔ بہارستان کو بڑے بڑے قلم کاروں کا تعاون حاصل رہا جس کی وجہ سے اس نے ادبی و صحافتی دنیا میں اعتبار اور وقار حاصل کیا۔

گیانے صحافتی و ادبی نقطہ نظر سے کافی اہمیت کا حامل رہا ہے یہاں سے 1931 کو ماہنامہ "ندیم" نمودار ہوا۔ آزادی سے قبل جاری ہونے والے ادبی رسالوں میں ماہنامہ ندیم انتہائی معیاری اور مقبول رسالہ تصور کیا جاتا تھا۔ ادب و صحافت کے فروغ میں ندیم کی خدمات کو ہرگز فراموش نہیں کیا جاسکتا ہے۔ اس کے ایڈیٹر معروف طنز و مزاح نگار انجم مانپوری تھے۔ ندیم میں ملک بھر کے بڑے بڑے قلم کاروں، فنکاروں، ادیبوں اور شاعروں کی تخلیقات شائع ہوتی تھیں۔ اس کا شمار ملک کے موقر ترین ادبی رسائل میں ہوتا تھا۔ یہ رسالہ 1949 تک جاری رہا۔ جولائی - اگست 1933 کو ندیم کا بہار نمبر شائع ہوا۔ جس کی ادبی اور صحافتی دنیا میں خوب پذیرائی ہوئی۔ اگست - ستمبر 1935 کو ندیم نے ایک بار پھر بہار نمبر نکالا جسے اہل علم نے قدر کی نگاہ سے دیکھا۔ بہار میں ادبی صحافت کی روایت کو آگے بڑھانے اور نکھارنے میں ندیم نے نمایاں رول ادا کیا۔ ایک طرف نئے لکھنے والوں کی تربیت کی اور انہیں اپنے صفحات پر جگہ دیکر ان کو متعارف کرایا تو دوسری طرف بڑے اور مستند فنکاروں کی

تخلیقات کو شائع کر کے قارئین کے ادبی ذوق کو جلا بخشی۔

آزادی سے قبل جاری ہونے والے معروف اور اہم ادبی رسائل میں ندیم کے بعد ”سہیل“ کا نمبر آتا ہے۔ ماہنامہ سہیل 1939 کو گیا سے جاری ہوا۔ بہار سے نکلنے والے رسائل و جرائد میں سہیل واحد ایسا رسالہ ہے جو کافی لمبے عرصے تک جاری رہا۔ سہیل نے اپنے خصوصی نمبرات کی وجہ کر بھی کافی مقبولیت حاصل کی۔ یہ رسالہ بسل سہنسا روی کے ادبی و صحافتی کاوشوں کے نتیجے میں وجود میں آیا۔ ترقی پسندی اور اشتراکیت کو پروان چڑھانے میں اس کی خدمات ناقابل فراموش ہیں۔ اس رسالہ نے ادب و صحافت کی غیر معمولی خدمت انجام دی ہے۔ بہار کی ادبی صحافت کو سمت و رفتار دینے اور ادبی ماحول پیدا کرنے میں بھی سہیل نے غیر معمولی طور پر حصہ لیا ہے۔ اس کے خصوصی نمبر کافی تعداد میں شائع ہوئے ہیں۔ ہندو پاک کے علاوہ بیرون ممالک میں بھی یہ رسالہ پڑھا جاتا تھا۔ اس رسالہ نے ہندوستان میں بڑے بڑے شعراء، ادباء اور فنکاروں کو ابھرنے اور چمکنے کا موقع دیا۔ بہار کے نامی گرامی ادیب و شاعر اس سے منسلک رہے ہیں۔ بہار کی ادبی صحافت کی تاریخ سہیل کے ذکر کے بغیر ادھوری رہے گی۔

اس عہد کے دیگر اہم ادبی رسائل و جرائد میں ”معیار“ بھی معیاری رسالہ تھا۔ یہ رسالہ پٹنہ سے مارچ 1936 کو جلوہ افروز ہوا۔ اس کے ایڈیٹر مشہور محقق قاضی عبدالودود تھے۔ یہ رسالہ انجمن ترقی اردو پٹنہ کا ترجمان تھا۔ یہ اعلیٰ درجہ کا ادبی اور تحقیقی رسالہ تھا۔ معیار یوں تو ماہنامہ رسالہ تھا لیکن سال میں چھ شمارے ہی نکلتے تھے۔ یہ ہر ایک ماہ بعد منظر عام پر آتا۔ اس رسالہ کی انفرادیت یہ تھی کہ ہر شمارہ کا صفحہ ایک سے شروع نہیں ہوتا تھا بلکہ پہلے شمارہ کے آخری صفحہ کے بعد سے اس کا سلسلہ وار نمبر چلتا رہتا تھا۔ معیار کا مقصد ہی معیاری، علمی، ادبی اور تحقیقی مقالات کی اشاعت اور تخلیقی ادب پیش کرنا تھا۔ غالباً معیار واحد ایسا رسالہ تھا، جس میں شعراء کے کلام شائع نہیں کئے جاتے تھے۔ اس کا پہلا شمارہ مارچ 1936 کو منظر عام پر آیا۔ مدیر نے ادارہ میں اپنے مقاصد کا اظہار ان الفاظ میں کیا ہے:

”انجمن ترقی اردو (شاخ پٹنہ) کو ایک رسالہ نکالنے کی ضرورت محسوس ہوئی جو صرف ادب اور زبان سے متعلق تحقیقی مضامین اور مطبوعات جدیدہ کے تبصرے شائع کرنے پر قناعت نہ کرے بلکہ تخلیقی ادب کے نمونے بھی بالا التزام پیش کرتا رہے، معیار اسی احساس کا نتیجہ ہے“

(معیار، پٹنہ شمارہ نمبر ۱، مارچ 1936)

اس دور کے اہم جرائد میں عظیم الدین کا رسالہ ”معاصر“ بھی قابل ذکر ہے۔ یہ ماہنامہ ادبی اور تحقیقی رسالہ 1940 کو پٹنہ سے جاری ہوا۔ یہ اپنی نوعیت کا ممتاز رسالہ تھا، اس میں ادارے نہیں ہوتے تھے۔ اس کے مستقل لکھنے والوں میں پروفیسر کلیم الدین احمد، قاضی عبدالودود، رضا مظہری، محمد حسن اور پروفیسر سید حسن عسکری

کے نام اہم ہیں۔ معاصر اپنے وقیع مقالات، علمی مضامین اور مطبوعات جدیدہ پر جامع اور بے لاگ تبصرے کی وجہ کر معاصر رسائل و جرائد میں ممتاز رہا ہے۔

آزادی سے قبل جاری ہونے والے رسائل و جرائد میں بعض تو ایسے تھے جو علاقائی اور ریاستی سطح تک محدود تھے۔ لیکن ان میں بعض رسالے ایسے تھے جو قومی بلکہ عالمی سطح کے تھے۔ بہار کی ادبی صحافت کا بنظر غائر مطالعہ کیا جائے تو بات سامنے آتی ہے کہ بہار سے جاری ہونے والے ان معتبر اور معیاری رسائل نے زبان و ادب کی اشاعت و فروغ میں اہم حصہ لیا اور ادبی، تہذیبی اور ثقافتی موضوعات پر مضامین و مقالات شائع کر کے ملک کے تمدنی و ثقافتی سرمایہ میں اضافہ کیا۔ آزادی سے قبل جاری ہونے والے رسائل کی تعداد یوں تو بہت ہے لیکن ان میں ایسے رسائل کم ہیں جو ادبی افق پر زیادہ دنوں تک اپنی روشنی بکھیر سکے۔ ملک کی آزادی تک بہار میں ادبی اور صحافتی روایت مستحکم ہو چکی تھی۔ جس کا فائدہ یہ ہوا کہ آزادی کے بعد رسائل و جرائد کی اشاعت میں خاصہ اضافہ ہوا۔



”اردو جرنل“ میں اشتہارات کے لیے رابطہ کریں

ڈاکٹر محمد ضمیر رضا

شعبہ اردو، مگدھ مہیلا کالج، پٹنہ

رابطہ: 9334392584-9304735377



ISSN . 2278-2613

# تقیق

ریسرچ جرنل

اکتوبر 2021ء تا مارچ 2022ء

مدیر اعلیٰ

احمد بدر

مدیر

فردا حسن فرد



**JAMSHEDPUR  
PARE**

(People for Academic Research & Extension)  
Jamshedpur

(پپل فارا کاڈمک ریسرچ اینڈ ایکسٹنشن)

PEER REVIEWED

ISSN 2278-2613

**TAHQEEQ** Research Journal Oct. 2021 to March 2022  
A Quarterly Refereed Research Journal of Urdu, Persian and Arabic

Chief Editor  
**AHMAD BADR**

Editor  
**FARDUL HASSAN FARD**

Address  
304, Sanjiwani, Sundarban (Phase-II), Jamshedpur, 832110, Jharkhand (India)

Mobile  
09835505010

Website  
[www.pare.org.in](http://www.pare.org.in)

e-mail  
[mynamesahmedbadr@gmail.com](mailto:mynamesahmedbadr@gmail.com)

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Published by Ahmad Badr for PARE, Jamshedpur from  
304, Sanjiwani, Sundarban (Phase-II), Jamshedpur, 832110, Jharkhand (India)

## شوق: ایک تعارف

ڈاکٹر صوفیہ پروین

صدر شعبہ اردو، انجمنیت سنگھ کالج، بکرم گنج (رہتاس)، بہار

سہسرام کی تاریخی، علمی اور ادبی حیثیت مسلم ہے۔ اس خاک سے نہ جانے کتنے نامور، دانشور، صوفیاء، شعراء، ادباء، اطباء وغیرہ پیدا ہوئے اسی مٹی نے 19 فروری 1945ء کو ایک فکشن نگار کو بھی جنم دیا جسے دنیائے ادب شوق کے نام سے جانتی ہے۔ ان کا اصل نام شفیق احمد تھا۔ ان کے والد کا نام ولی احمد تھا جو شہر سہسرام کے محلہ کبیر گنج کے باشندے تھے۔ ان کی والدہ سائرہ خاتون ذی علم خاتون تھیں جنہیں داستانیں، قصے، کہانیاں پڑھنے کا شوق تھا۔ عام بچوں کی طرح شوق بھی بچپن میں کھیلوں میں دلچسپی لیتے رہے۔ پتنگ بازی اور فٹ بال سے انہیں خصوصی دلچسپی تھی۔ پہاڑوں کی سیر اہل سہسرام کے لئے تفریح کا ایک اچھا مشغلہ ہے۔ وہاں کے لوگ برسات کے دنوں میں پہاڑوں اور جھرنوں کی سیر کے لئے نکلتے ہیں۔ شوق بھی اس کے شیدائی تھے۔

شوق کی ابتدائی تعلیم سہسرام کے ایک مدرسے میں ہوئی۔ ابتدائی تعلیم کے بعد اسکول میں داخلہ لیا۔ ہائر سکندری کرنے کے بعد انہوں نے گریجویشن میں داخلہ لیا لیکن تلاش معاش کی وجہ سے تعلیم ادھوری چھوڑ کر جھریا، رانچی اور سلی گوڑی کی خاک چھانتے رہے۔ بالآخر سہسرام کے سب سے قدیم کالج یعنی شانتی پرساد جین کالج میں داخلہ لیا اور 1970ء میں گریجویشن آنرز مکمل کیا۔ کالج کے اساتذہ پروفیسر اظہر حسین صاحب، پروفیسر حسن آرزو، پروفیسر بدری نرائن سنگھ، رامیشور سنگھ کشپ (عرف لوہا سنگھ) وغیرہ سے ان کو بالخصوص انسیت تھی۔ ان کے ہم درسوں میں پروفیسر حسین الحق، فخر رضوی، شمیم ہاشمی، محمد اسراہیل وغیرہ اہم ہیں۔ 1973ء میں ایم۔ اے۔ (اردو) کا امتحان انہوں نے امتیازی نمبروں سے پاس کیا۔ کالج میں لکچرار ہونے کے بعد انہوں نے اردو نالوں میں ویلن کے تصور پر پی ایچ ڈی کا مقالہ لکھا جس پر مگدھ یونیورسٹی، گیانے انہیں ڈاکٹر آف فلاسفی کی ڈگری تصویب فرمائی۔

شوق کی ابتدائی زندگی ہنگامہ خیز رہی، کیونکہ وہ مختلف تنظیموں سے وابستہ رہے۔ وہ اردو

اسٹوڈنٹس فیڈریشن کے سکرٹری کے ساتھ قلمی جہاد، تو رولنگت اور جمن سکول کے اردو کی ادارت سے بھی وابستہ رہے۔ سید احمد قادری کے ذریعے لکھے گئے ایک مکتوب میں ان کی ادبی زندگی کے آغاز سے متعلق بتایا:

”کیسے کہوں قادری صاحب کہ کن حالات میں ادبی سفر کا آغاز ہوا کہ اس وقت اس کا ہوش بھی نہیں تھا کہ یہ شوق آگے چل کر کیا رنگ لائے گا۔ گھر میں ماں کو آٹا نہیں دیتے کا شوق، بچپن میں گئی راتوں تک، طلسم ہوش ربا کی کہانیاں سنیں۔ پھر خود بھی لکھنے کا شوق ہونے لگا۔ اس وقت میں چوتھی یا پانچویں کلاس میں پڑھتا تھا۔ میرا ایک دوست خانقاہ کبیر یہ کا طالب علم تھا۔ اور میں سمجھتا تھا کہ اس کی اردو مجھ سے اچھی ہے لہذا کہانیاں لکھ کر اسے ٹھیک کرنے کو دیتا اور وہ ان سے چولہا جلانے کا مصروف لیتا۔ پھر جون 1962ء کے ’سوز‘ کلکتہ میں میری پہلی کہانی ’میں قاتل ہوں‘ شائع ہوئی تو دوستوں نے افسانہ نگار کہہ کر چڑھانا شروع کر دیا۔ میرے دل کو ٹھیس لگی۔ پھر میں نے نہ دوستوں سے کہانیوں کی باتیں کیں نہ کہیں چھپنے کے لیے بھیجا مگر 1965ء میں تین سال کی نموشی ایک چیخ کی طرح ہفت روزوں، ماہناموں، میں بکھر گئی۔ اسی دوران محشر خیال، دہلی نے میرا ناول ’طلعت‘ شائع کیا۔ تب سے یہ سفر اب تک جاری ہے۔“

(’باتیں ایک سلگتی شام کی‘، سہیل (گیا) شمارہ 6-7، جلد 44، جون۔ جولائی 1983ء)

یہ کہا جائے تو غلط نہ ہوگا کہ 1970ء تک جدید فکشن کے حوالے سے شوق کی شناخت ادھوری تھی۔ ادبی شناخت کا دور 1970ء سے 1980ء کے درمیان شروع ہوا۔ شوق کی ادبی زندگی کا ناقابل فراموش موڑ وہ ہے جب وہ ’بیسویں صدی‘ اور ’شع‘ میں شوق بہرامی کے نام سے لکھے تھے لیکن ان کا مشہور افسانہ ’کھڑکی‘ جو ’آہنگ‘ (گیا) سے ستمبر 1971ء میں شائع ہوا وہ ان کی شناخت بالخصوص جدید اردو افسانے کے حوالے سے اہم ہے۔ یہ افسانہ نہ صرف اپنے اسلوب کے اعتبار سے بلکہ تاریخی حوالے سے بھی اہم تھا کیونکہ اسی زمانے میں بنگلہ دیش کا واقعہ پیش آیا۔ ان کی بہن ریحانہ خاتون، ڈھاکہ میں رہتی تھیں۔ اسی لیے ان تمام عوامل کو انہوں نے قریب سے محسوس کیا اور تخلیقی پیکر میں سمو کر ’اندھی رات‘ لکھا جو موقر رسالہ ’سوغات‘ (بنگلور) میں شائع ہوا۔ اس افسانے کی بھی خوب خوب پذیرائی ہوئی۔ ’آہنگ‘ گیا اور ’سوغات‘ میں چھپے افسانوں کے ذریعے شوق جدید افسانے کی نئی منزل کی طرف گامزن ہوئے۔

شوق کی ادبی زندگی کا اہم موڑ جہاں 1970ء سے شروع ہوا وہیں ان کی زندگی کے

شب و روز میں بھی ایک اہم تبدیلی 1970ء سے آئی جسے ازدواجی زندگی کہتے ہیں۔ شوق کی شادی نومبر، 1973ء میں آسیہ خاتون سے ہوگئی۔ انھوں نے ایک خوشگوار ازدواجی زندگی گزاری۔ وہ چار بیٹیوں اور ایک بیٹے شارق احمد خاں کے شفیق باپ بھی رہے۔ ایک انٹرویو کے دوران انہوں نے شریک حیات کی مخلصانہ کوششوں کو اس طرح سراہا ہے:

”6 نومبر، 1973ء کو شادی ہوئی۔ تو جیسے دوڑنی، بھاگتی زندگی پہلے لڑکھرائی اور پھر سست ہوگئی۔ بیوی کی خواہش کہ ایم۔ اے کر لوں اور جھریا کی پرائیویٹ ملازمت چھوڑ دوں۔ کاندھوں پر بہن کی شادی کا بوجھ۔ شاید اس کی سچی لگن، حوصلہ، محنت اور محبت کی کارگزاری ہے کہ میں نے خاردار راستوں پر سفر کیا۔ وہ ہر حالت میں میرے ساتھ رہی، اپنے دل میں امید کی شمع جلائے ہوئے کہ آنے والا کل خوش آسند ہوگا۔ اور ہم اپنے خوابوں میں قوس قزح کے رنگ بھر سکیں گے۔ اس نے بڑی قربانیاں دی ہیں۔ قادری صاحب! ہم نے خوش آسند مستقبل کے لیے شادی کے بعد کا ابتدائی زمانہ بن باس کی طرح اپنے گھروں میں گزارا ہے۔ پھر موسم بدلا، امیدوں کی چمن میں کلیاں لگیں، پھول کھلے! اور بہار آگئی۔ اب ہم مطمئن ہیں۔“

(’باتیں ایک سلگتی شام کی‘، سہیل (گیا) شمارہ 7-6، جلد 44، جون۔ جولائی 1983ء)

کم ادب کے بہت کم قاری اس بات سے واقف ہیں کہ شوق نے شاعری بھی کی ہے اور شاعری کے حوالے سے ’مورچہ‘ (گیا) اور ’صبح نو‘ (پٹنہ) میں چھپے بھی ہیں۔ شاعری کرنے کے اور شاعری چھوڑنے سے متعلق انھوں نے بتایا:

”1977ء، 1978ء میں آزاد نظموں کا سیلاب آیا ہوا تھا۔ میرے دوست فخر رضوی اور شمیم ہاشمی خوب شاعری کر رہے تھے۔ میں نے تجربہ کیا کہ میں بھی شاعری کر سکتا ہوں یا نہیں، چار، چھ نظمیں بھی لکھیں جو ’مورچہ‘ اور ’صبح نو‘ میں چھپ بھی گئیں۔ اسی دوران مجبور شمسی سہرام آئے وہ میری شب خون (الہ آباد) میں چھپی کہانی ’تعبیر‘ سے بہت متاثر ہوئے تھے۔ ملاقات ہوئی تو کہنے لگے ”جب آپ اچھی کہانیاں لکھ سکتے ہیں تو بلاوجہ شاعری کیوں کر رہے ہیں، اس سے آپ کی افسانہ نگاری متاثر ہوگی۔“ میں نے اس مشورے کے بعد شاعری چھوڑ دی۔“

(’باتیں ایک سلگتی شام کی‘، سہیل (گیا) شمارہ 7-6، جلد 44، جون۔ جولائی 1983ء)

عام طور سے کہا جاتا ہے شوق کی کہانیوں میں عدم تحفظ ہے یہ احساس جہاں ایک حساس

فن کار کے جس سے وابستہ ہے تو دوسری طرف حالات اور آئے دن واقعات کی دین بھی ہے۔  
اسرار گاندھی نے شفق کا خاکہ 'شفق': میرے دوست' میں لکھا ہے:

"سہرام کے قیام کے دوران ہم لوگ روز صبح و شام ٹہلنے نکلتے، ایک صبح جب ہم لوگ شیر شاہ سوری کا مقبرہ دیکھنے جا رہے تھے تو ایک جگہ خاصی بھیڑ دیکھی، پوچھنے پر پتہ چلا کہ یہاں پوسٹ مارٹم ہوتا ہے، اس دن پوسٹ مارٹم کے لیے ایسی گیارہ لاشیں آئی تھیں جنہیں قتل کیا گیا تھا۔ ہم لوگوں نے جھر جھری سی لی۔ بالکل ایسی ہی جھر جھری جیسی کبھی شفق کی کہانیوں کو پڑھ کر محسوس ہوتی ہے۔"

('شفق' — میرا دوست، ص 36، سہیل (گیا) شمارہ 7-6، جلد 44، جون- جولائی 1983ء)

روفیہ حسین الحق شفق سے متعلق لکھتے ہیں:

"شفق کا معاملہ یہ ہے کہ جس قلم سے وہ 67ء میں لکھا کرتے تھے وہی قلم آج 87ء میں بھی ان کی میز پر ہے۔ صرف روشنائی بدلتی ہے، کہنے کا مطلب یہ ہے کہ شفق کے یہاں تبدیلی کا عمل بہت تیز نہیں ہے۔ وہ ایسے مسافر ہیں جو آہستہ چلتا ہی اور ہر دورا ہے پر رک کر سوچتا ہے کہ اسے کدھر جانا ہے، شفق کے برخلاف ہم سب دوست تیز چلنے والوں میں شمار کئے جاسکتے ہیں مگر ہم تیز رو ہونے کے باوجود بیچ راہ میں رک کر آرام بھی کرتے ہیں لیکن شفق رکتے نہیں ہیں وہ مسلسل سفر میں رہتے ہیں۔"

(شفق، اسلوبیاتی ارتقا کی ایک مثال، معلم اردو، لکھنؤ، ص 12، جلد 6، شمارہ 2، فروری 1987ء)

'کمٹی ہوئی زمین' شفق کا پہلا مطبوعہ افسانوی مجموعہ ہے جس میں کل تیرہ افسانے ہیں۔

یہ مجموعہ نومبر 1979ء میں زیور طبع سے آراستہ ہوا۔ 'کمٹی ہوئی زمین' کے افسانے ہمارے ذہنی معاشرتی اور بین الاقوامی مسائل کے پس منظر میں لکھے گئے ہیں۔

'سگ گزیدہ' شفق کے نو افسانوں پر مبنی افسانوی مجموعہ ہے جو پہلی بار 1984ء میں طبع سے آراستہ ہوا جس میں فخر الدین علی احمد میموریل کمیٹی، لکھنؤ کا مالی تعاون بھی شامل ہے۔

اس مجموعہ کا پہلا افسانہ بھی 'سگ گزیدہ' ہے۔ 'سگ' اصولی طور پر پاسبانی اور نگہداشت کے لیے مامور ہوتا ہے۔ اسی طرح پولیس اور حفاظتی دستے کسی ملک کی سرحدوں کی حفاظت کے لیے عوام کو فتنہ انگیزی اور ظالموں سے بچانے کے کام پر مامور ہوتے ہیں، لیکن وہی حفاظتی دستے

عوام، بالخصوص اقلیتوں کے خون کے پیاسے بن جاتے ہیں۔ ان کی گولیاں کمزوروں کی نہ صرف

اپنا نشانہ بناتی ہیں بلکہ ایک پوری نسل کو سکے اور بلکنے پر مجبور کر دیتی ہے۔ اپنی مدافعت بھی کوئی کرنا چاہے تو نہیں کر سکتا کیونکہ مخالفوں کو ٹھون کی ہولی پاند ہے۔

تیسرا افسانوی مجموعہ 'شناخت' جو فخر الدین علی احمد میموریل کمیٹی، لکھنؤ کے مالی تعاون سے 1989ء میں شائع ہوا۔ اس میں کل سترہ افسانے ہیں۔ اس مجموعے کی تمام کہانیاں بھی ہماری زندگی اور معاشرے کے روز و شب سے لی گئی ہیں۔

اس طرح ہم دیکھتے ہیں کہ شفق کے تمام افسانوی مجموعے کے افسانے ہماری زندگی، ہماری معاشرت، ہماری ملکی و ملی مسائل کے ساتھ بین الاقوامی مسائل کی بھی عکاسی کرتے ہیں۔ ہر تخلیقی عمل، چاہے وہ تمثیل کی صورت میں ہو چاہے علامتی پیرہن میں، وہ ہماری ہی عکاسی کرتا ہے یہی وجہ ہے کہ جدید یوں کی بھیٹر میں بھی شفق کی منفرد شناخت ہے۔

'کالچ کا بازی گر' گرچہ مختصر ناول ہے لیکن اس کا کیڑوس کافی وسیع ہے۔ یہ ایک طویل المناک اور خون چکاں داستاں ہے۔ جو زمان و مکاں سے ماورا ہے اور یہ اپنے عہد کی ایک زندہ تاریخ اور تاریخی دستاویز ہے۔ جس کی پذیرائی عصمت چغتائی جیسی عظیم فکشن نگار نے بھی کی ہے۔ ناول 'بادل' ملکی اور بین الاقوامی پس منظر کا غماز و عکاس ہے۔ پوری دنیا میں مسلمانوں کے خلاف صہیونیوں اور صیلیبیوں کی سازش نے نہ صرف مسلمانوں کو دہشت گرد قرار دینے کا منصوبہ بنا رکھا ہے بلکہ اس دہشت گردی کے خاتمے کے پس پشت مسلم ممالک کو برباد کرنے کی سازش اور ان کے قدرتی وسائل پر قبضہ جمانے کا منصوبہ بھی جاری ہے۔ پورا ناول مکالماتی انداز میں ہے جس کے مکالمے بڑے ہی معنی خیز ہیں۔ ناول 'کابوس' کا پس منظر ہندوستان میں فرقہ واریت بالخصوص گجرات فساد کا پس منظر ہے۔ اس ناول میں ملک کی موجودہ سیاسی، ذہنی اور جذباتی صورت حال صاف نظر آتی ہے۔ ملک میں فاشزم کی آگ کس طرح تیزی سے پھیل رہی ہے اور اقلیتی فرقہ کس طرح عدم تحفظ اور بے بسی کا شکار ہے یہ سب کچھ اس کے کردار خالد، نعیم اور سلمیٰ کے عمل اور رد عمل سے جوڑ کر دکھائے گئے ہیں۔

افسوس صد افسوس کے اردو ادب کے اس مایہ ناز فکشن نگار نے 28 فروری 2010ء کو بوقت ایک بجے دن سندھو ہاسپٹل، وارنسی میں دائمی اجل کو لبیک کہا۔ یکم مارچ 2010ء کو بعد نماز ظہر حاجی حرین کے قبرستان میں سپرد خاک ہوئے۔ خدا انہیں غریقِ رحمت کرے۔ آمین!



ISSN - 2582 - 3612

# سائیکالوجی

یو۔ جی۔ سی۔ کیئرلسٹ جرنل

جلد: ۴ شماره: ۱۵

(اکتوبر تا دسمبر ۲۰۲۲ء)

پروفیسر علی (پروفیسر)

پروفیسر علی (پروفیسر)



RNI No. BIH URD / 2019 / 78036

ISSN - 2582 - 3612

Vol. : 04, Issue : 15  
October to December 2022

Quarterly

# SAGHAR E ADAB

Muzaffarpur

( UGC CARE - List Journal )

Chief Editor (Honorary)

*Prof. (Dr.) Syed Alay Zafar*

UNIVERSITY DEPTT. OF URDU

B. R. A. BIHAR UNIVERSITY

MUZAFFARPUR - 842 001 (BIHAR)

MOB. +91 94300 84261, +91 90062 53903

**NO BRANCH** Ph.: 2303206

سونه اور چاندی کے گارتی شدہ زیورات



# خزانہ

جوئیلرس

مرادپور، پٹنہ

## Khazana

JEWELLERS

MURADPUR, PATNA - 4



## ڈاکٹر صوفیہ پروین

## فراق گورکھپوری کا شعری آہنگ

اردو کے ممتاز نمائندہ شاعر، ادیب، نقاد، مفکر فراق گورکھپوری کی پیدائش 28 اگست 1896ء میں گورکھپور میں اور وفات 3 مارچ 1982ء کو دہلی میں ہوئی۔ ان کا حقیقی نام رگھوپتی سہائے تھا، فراق تخلص اور گورکھپوری کی نسبت سے فراق گورکھپوری لکھتے تھے۔ ان کی شخصیت بڑی تہہ دار، پیچیدہ اور متنوع تھی، علمی، ادبی، سیاسی و سماجی حلقوں میں ان کی مقبولیت یکساں تھی، نصف صدی سے زیادہ عرصہ تک وہ شعری علوم پر چھائے رہے۔

انہوں نے اردو کے جن شاعروں سے اثر قبول کیا، ان میں میر، غالب اور مصحفی ہیں۔ ان کی شاعری میں سوز و گداز، لمبیت و شادابی، وسعت خیال اور جذبے کی پختگی نمایاں ہے۔ فراق گورکھپوری کی شاعری میں فکر و فن اور موضوع و اسلوب کا ایک نیا اور منفرد آہنگ ملتا ہے۔ انہوں نے صنف غزل کو خاص طور پر ذریعہ اظہار بنایا۔ ہندی اساطیر اور روایات کو اردو کی شعری جمالیات سے ہم آہنگ کر کے انہوں نے ایک مخصوص شعری نظام کی تخلیق کی، انہوں نے اپنے تجربے اور مشاہدے کو اردو شاعری میں اس طرح جذب کر دیا ہے کہ ان کی شاعری کے نرم اور مانوس لب و لہجہ کو صاف پہچانا جاسکتا ہے۔ بقول ڈاکٹر محمود الہی :

”فراق ایک منفرد لہجے کے مالک تھے، اور ان کی آواز بڑی دور سے پہچان لی جاتی تھی۔“

فراق کی شاعری میں ہندوستانی فضا کی تھر تھراہٹ محسوس ہوتی ہے۔ فراق کی شاعری ذات کی داخلی اور باطنی گہرائیوں سے لے کر حیات و کائنات کی خارجی وسعتوں تک محیط ہے۔

غم حیات وہی دور کائنات وہی  
جو زندگی نہ بدل دے وہ زندگی کیا ہے

فراق ایک ہمہ جہت شخصیت کے مالک ہیں۔ وہ قدیم ہندو کلچر، دیومالا سنسکرت اور ہندی ادب سے گہری واقفیت رکھتے ہیں۔ انہوں نے انگریزی ادب بالخصوص رومانی دور کے شعراء سے مغربی شعروادب

کی روایت سے آگاہی حاصل کی۔ اسی وسیع مطالعے کے پس منظر میں انہوں نے موضوع اور اسلوب کی نئی روایتوں کو جنم دیا ہے۔

میں نے اس آواز کو مرمر کے پالا ہے فراق

آج جس کی نرم لو ہے شمع محراب حیات

فراق نے اپنی شاعری کو پوری زندگی کا آئینہ بنایا ہے۔ ان کی شاعری میں ہمیں زندگی کی تمام

حقیقتیں، تجربہ اور ہندوستانی فضا کی نغمگی سنائی دیتی ہے۔ گوپی چند نارنگ نے ٹھیک لکھا ہے کہ :

”فراق کی شاعری میں انسانیت کی صدیاں بولتی ہیں۔ انہوں نے اردو شاعری کو

احساس و شعور کی نئی سطح دی۔ فراق غزل کو ہندوستانی لہجہ اور نیا منگ دیا۔“

(فراق گورکھپوری، ذہنی خاکوں میں، ص۔ 28)

فراق گورکھپوری نے اپنی غزلوں کے ذریعہ عشقیہ شاعری کو عروج بخشتے ہوئے ایک ایسی فضا قائم

کرنے کی کوشش کی جس میں عاشق و معشوق کی اندرونی کیفیت نکھر کر سامنے آتی ہے، انہیں اپنی شعری عظمت

اور تنقیدی بصیرت کے انفرادی اندازہ کا بخوبی اندازہ تھا جس کا اظہار وہ بہت اعتماد کے ساتھ جا بجا اپنی شاعری میں کرتے

ہیں۔ ان کے مطابق ایک بڑا اور اچھا شعر وہی ہے جسے پڑھنے والا کچھ وقفے کے لئے اُس کے اثر میں ڈوب

جائے اور ایک وجدانی و روحانی کیفیت میں مبتلا ہو جائے، اُس میں گویا مقناطیسی کشش ہو اور اس کا ادراک

پڑھنے والوں پر فوری طور پر ہو جائے، اس سلسلے میں وہ خود لکھتے ہیں :

”بڑا شعر وہی ہے جو ہمارے خون کا مستقل جزو بن جائے، پھر یہ بھی کہ یہ

شعر صرف لطف زبان و بیان کی سطحی کیفیت پیدا نہ کرے بلکہ دعوت غور و تامل

دے تاکہ پڑھنے والا ہر شعر پر کچھ دیر کے ملنے ڈوب جائے اور ایک روحانی

اور وجدانی وقفے کے بعد اگلا شعر پڑھے اور پھر ایک نئی کیفیت میں

آجائے۔“

(فراق گورکھپوری: ذہنی خاکوں میں مطرب نظامی)

فراق گورکھپوری میر تقی میر کی شاعری سے متاثر تھے، لیکن اس کے باوجود وہ ان کی تقلید نہیں

کرتے، میر کے یہاں غم کے احساسات ذاتی ہیں، گویا تمام تر درد و غم کا اظہار میر ہی سے وابستہ رہتا ہے، لیکن

فراق کی حزنیہ شاعری کی دنیا الگ ہے وہ اسے ذاتی بناتے ہوئے عوام تک لانے کی کوشش کرتے ہیں۔

ہر اک چراغ سے ہر تیرگی نہیں مٹی چراغ اشک جلاؤ بہت اندھیرا ہے

مہربانی کو محبت نہیں کہتے اے دوست آہ! مجھ سے وہ تری رنجش بے جا بھی نہیں

رکی رکی سی شب مرگ ختم پر آئی وہ پو پھٹی وہ نئی زندگی نظر آئی  
 بہت پہلے سے ان قدموں کی آہٹ جان لیتے ہیں تجھے اے زندگی ہم دور سے پہچان لیتے ہیں  
 فراق گورکھپوری کی شاعری میں سب سے پہلی بات جو ہمیں اپنی طرف متوجہ کرتی ہے وہ اُن کا  
 جداگانہ آہنگ ہی ہے، جوان کی شاعری میں حُسن و جمال کے کرشمے پیدا کرتا ہے۔ وہ کلاسیکی مزاج اور ادبی  
 روایت کے جلال و جمال کے آہنگ کی مکمل طور پر نمائندگی کرتے ہیں، نیز اس میں دلکشی، چمک، جمالیاتی حس  
 اور جدت پیدا کرنے کی بھرپور کوشش کرتے ہیں جو اپنی مثال آپ ہے۔

فراق گھورکھپوری نے باریک بینی اور ژرف نگاہی سے اپنے کلام میں نیا پن اور اچھوتا پن پیدا کیا  
 ہے۔ ان کی خوبصورت تخیل، جمالیاتی حس اور ہندی و سنسکرت شبہ کے فیضان نے ان کی تشبیہوں میں نئی جان  
 ڈال دی ہے۔

ایک مدت سے تیری یاد بھی آئی نہ ہمیں اور ہم بھول گئے ہوں تجھے ایسا بھی نہیں  
 دلوں کو تیری تبسم کی یاد یوں آئی کہ جگمگا انھیں جس طرح مندروں میں چراغ  
 وہ کچھلی رات نگہ زرگس خمار آلود کہ جیسے نیند میں ڈوبی ہوئی ہو چند کرن  
 فراق کی غزلوں کا بنیادی موضوع حسن و عشق ہے۔ ان کی عشقیہ شاعری میں ایک مخصوص فضاملتی  
 ہے جو انہیں ہندو صنمیات سے حاصل ہوئی ہے۔ انہوں نے اپنی شاعری میں جنس اور لوازمات اور جسمانی  
 خطوط کو بھی پیش کیا ہے۔

سر سے پا تک حسن ہے سازِ نمو رازِ نمو آ رہا ہے ایک کم سن پر دبے پاؤں شباب  
 رس میں ڈوبا ہوا لہراتا بدن کیا کہنا کروٹیں لیتی ہوئی صبح چمن کیا کہنا  
 قامت ہے کہ کہسار پر چڑھتا ہوا دن ہے جو بن ہے کہ ہے چشمہ خورشید میں طوفان  
 فراق کے یہاں محبت کا جسمانی تصور ہے مگر جسم پرستی نہیں وہ جسم کے ساتھ ہی روح کے بھی قائل  
 ہیں۔ انہوں نے جنس کو روح کا مرتبہ دے دیا ہے۔ جمالیات، حصول عشق، ہجر و وصال کی کیفیات،  
 شاداب تخیل، دیومالائی تصورات، انگریزی، ہندی اور سنسکرت ادب کا فیضان، تجربے اور مشاہدے کی باریک  
 بینی یہ سارے عناصر ان کی غزلوں کی فضا ہموار کرتے ہیں۔

کس لئے کم نہیں ہے دردِ فراق اب تو وہ دھیان سے اتر بھی گئے  
 فضا تبسم صبح بہار تھی لیکن پہنچ کے منزل جاناں پہ آنکھ بھر آئی  
 شام بھی تھی دھواں دھواں حسن بھی تھا اداس اداس دل کو کئی کہانیاں یاد سی آ کے رہ گئیں  
 فراق نے غزل گوئی میں کافی شہرت حاصل کی۔ غزل میں ان کا محبوب موضوع عورت ہے کیوں

کہ وہ حسن پرست ہیں۔ لیکن ان کے محبوب کا مزاج تیکھا ہے۔ وہ اپنی عشقیہ شاعری پر فخر کرتے ہیں۔  
 طبیعت اپنی گھبراتی ہے جس سنان راتوں میں ہم ایسے میں تیری یادوں کی چادر تان لیتے ہیں  
 میری ہر غزل کو یہ آروز تجھے سجا کے نکالنے میری فکر ہو تیرا آئینہ میرے نغمے ہوں تیرا بجز نہیں  
 فراق اپنی جمال پرستی اور رومانیت کے باوجود انسان کے بیکراں غم کی تفسیر بھی بیان کرتے  
 ہیں۔ انہوں نے شخصی غم کے رشتے کو قیامت سے ملا دیا ہے۔

اس کائنات غم کی فسرده فضاؤں میں بکھرا گئے ہیں آکے وہ کچھ مسکرائیں  
 اس دور میں زندگی بشر کی بیمار کی رات ہو گئی ہے  
 فراق کی غزلوں میں حسن و جمال، کیف و نشاط، رعنائی و دلکشی موسیقی و ترنم، مسرت و انبساط کی  
 چاندنی چھٹکی ہوئی نظر آتی ہے۔

شب وصال کے بعد آئینہ تو دیکھ اے دوست ترے جمال کی دوشیزگی نکھر آئی  
 فراق اردو کے بے حد اہم رباعی گو شاعر بھی تسلیم کئے جاتے ہیں۔ ان کی رباعیاں اوروں سے بہت  
 مختلف ہیں بلکہ یہ کہنا زیادہ درست ہے کہ انہوں نے رباعی کے موضوعات میں بہت سی نئی جہات جوڑ دی۔ خصوصاً  
 ہندوستانی کلچر کی تصویر کشی اور باز آفرینی ان کی رباعیوں کے خاص امتیازات ہیں۔ جمال و جنس کی بہترین  
 ترنگ "روپ" کی رباعیوں میں دیکھی جاسکتی ہے۔ معصومیت اور ہندو ثقافت کی روشن لکیریں ان کی رباعیوں کو  
 بے حد ممتاز بناتی ہیں۔ اس ضمن میں پروفیسر وہاب اشرفی اپنی کتاب "تاریخ ادب اردو" میں رقم طراز ہیں :

"فراق کی ایک حیثیت ایسے رباعی گو کی ہے جس کا مقام اردو شاعری میں  
 مسلم ہے۔ ان کی رباعیوں کی انفرادیت سمجھوں نے محسوس کی ہے۔ احساس  
 جمال جنسی کیفیات لمس، بصری و سمعی پیکروں سے مالا مال ہو کر اپنی مثال آپ  
 ہیں۔ اکثر مثنویوں میں ہندوستانی کلچر سانس لیتا ہوا نظر آتا ہے۔ "روپ"  
 کی رباعیاں دراصل اپنے امتیازات کی وجہ سے الگ کیف پیدا کرتی ہیں۔  
 ان میں سنگھار رس جھلکتا نظر آتا ہے۔ ہندو اساطیر اور ہندو مذہب کے علاوہ  
 ایسی کیفیات بھی ملتی ہیں جن سے ہر کس و ناکس متاثر ہوئے بغیر نہیں رہ سکتا  
 ہے۔ دیومالائی کیفیات کا یہ برتاؤ کہیں اور دیکھنے کو نہیں ملتا۔ تہذیبی اور ثقافتی  
 نقطہ نظر سے بھی ان رباعیوں کی اپنی اہمیت ہے۔ روحانی کیف اور جسمانی  
 لذت سے بہرور "روپ" کی رباعیاں لازماً نائیگا بھید کا منظر پیش کرتی ہیں۔"

(تاریخ ادب اردو، جلد دوم، ص ۷۲۲)

یہ وہ حقائق ہیں جن سے فراق کی رباعیوں کی عظمت واضح ہوتی ہے اور ان کی انفرادیت کی

چھاپ کا شدید احساس ہوتا ہے چند رباعیاں ملاحظہ ہوں۔

مکھڑا دیکھیں تو ماہ پارے چھپ جائیں      خورشید کی آنکھوں کے شرارے چھپ جائیں  
رہ جاتا ہے وہ مسکرا کے تیرا کل رات      جیسے کچھ جھلملا کے تارے چھپ جائیں

لہروں پہ کھلا کنول کی آہٹ تو سنو      لگاتے ہوئے قدموں کی گنگناہٹ تو سنو  
ساون لہرائے مدھ میں ڈوبا ہواروپ      اس کی بوندوں کی جھنجھناہٹ تو سنو

آنسو سے بھرے بھرے وہ نینارس کے      ساجن کب آئے سکھی تھے اپنے بس کے  
یہ چاندنی رات یہ برہ کی پیڑا      جس طرح الٹ گئی ہو ناگن ڈس کے  
فراق گورکھپوری اپنی ذات میں ایک انجمن تھے۔ وہ مجسم زمانت و فطانت تھے۔ فراق جیسے جید  
شخصیتیں روز پیدا نہیں ہوا کرتیں۔ بقول اسلوب احمد انصاری:

”فراق ہندوستان کی نشاۃ ثانیہ کے ایک ممتاز نمائندہ ہیں۔ انہوں نے  
اردو غزل کو جو قد ریں دی ہیں وہ نئی اور اہم ہیں اور اس طرح انہوں نے  
اردو غزل کا رخ موڑ دیا ہے۔ اس بنیاد پر اگر انہیں جدید اردو غزل میں ایک  
بڑی موثر طاقت مان لیا جائے تو شاید بے جا نہ ہوگا۔“

(معنی کی جبلت، وہاب اشرفی، ص۔ ۱۳۸)

**Dr. Sufia Perween**  
Asstt. Professor & Head  
Department of Urdu  
Anjabit Singh College  
Bikramganj (Rohtas)  
Bihar  
Mob.- 90975 36026

*International Conference On*  
**Literature, Society & the Global Media**

10 & 11 September, 2021

Jointly organized by : Dept. of Media Studies, CMS Jain ( Deemed to be University) Baroda  
Scientific Research Association and 'Research Culture Society'

**Politics of Renaming the Place in Rohinton Mistry's *Such a Long Journey***

**Prabhat Kumar**

Assistant Professor, Department of English, A.S. College, Bikanernagar, Rajasthan  
University, Ara. + (Research Scholar, P.G. Department of English, P. J. Somaiya

Email Id: [prabhatkumar069@gmail.com](mailto:prabhatkumar069@gmail.com)

**Abstract:** *The name of a particular place denotes its cultural and historical identity. With a particular community associates its emotional bonding with that place. Rohinton Mistry is much concerned about the 'regional politics' of Shiv Sena in Bombay. The Parsi community emigrated to India around 10<sup>th</sup> century to avoid religious persecution by Muslims on the coast of Gujrat and started living as an agricultural community for the rest of their life. They retained their religious identity on the soil of India, and hence they grew as an Indian identity. But, the Parsi community had to re-introspect their future in the soil of India as the growing forces of Hindutva fundamentalism continue to threaten their cultural existence in a land which constitutionally ensures the religious freedom of every community with no discrimination.*

**Key words:** *Hindutva Fundamentalism, Cultural Genocide, Spatial Psychology*

**1. Renaming the Place: Erasing the Cultural Identity of the Marginalised community**

Rohinton Mistry's "Such a Long Journey" addresses an issue of regional politics and the practice of regional politics which relegates the Parsi community to the periphery and hence makes them a marginalised religious community against the cult of Hindutva and fundamentalism. In "Such a Long Journey", Dinshawji expresses his protest against the exclusion of the Parsi cultural identity in Bombay. This cultural identity is threatened by a fanatic *Shiv Sena* group who believes in the regional politics. The rise of the Hindutva ideology has created a sense of fear and cultural loss in the psyche of the Parsi community. The 'cultural politics' of *Shiv Sena* is well observed in the novel through the following statement:

".....- that bastard Shiv Sena leader who worship Hitler and talk about "Maharashtra for Maharashtrians" nonsense. They won't stop till they get the whole of Raj.' (73)"

What Dinshawji is discussing is of the politics of power which operates on the exclusion of a particular community on the basis of their religious and ethnic identity. The practice of regional politics shatters the very idea of India as a secular nation. The rise of Hinduism in the form of political party of *Shiv Sena* threatens the cultural identity of the Parsi community and make them feel a politically marginalisation figure in the socio-demographical structure. Dinshawji pin-points the exclusivist policies of *Shiv Sena* in Maharashtra:

" ' Wait till the Marathas take over, then we will have real Gandhi. The only thing we know is to have rallies at Shivaji Park, shout slogans, make threats, and change the name of

During the performance *hurkiya* sits facing his audience with the *lund* skin of the instrument is tightened by the chords which meet at the centre of the pitch of the sound. The style of performance varies from one area to another. In legend, different techniques are employed by *hurkiyas* depending on the area spoken in that area:

It could be said that there are local schools of *Hurkiyas* due to the existence to the knowledge imparted by a particular *hurkiya* in the form of the Kumaoni dialect, which is itself one of the many forms of “language of the mountains”. Some bards recite *Malahars* in a declamation, as a recitative, or as a mixture of the two. [10]

The legends narrated by *hurkiyas* are mainly associated with local deities and historical accounts of the rulers of Kumaon. They were the family bards of Kumaon. Those rulers employed *hurkiyas* to sing praises of their ancestors. *hurkiyas* not only provided entertainment but also act as the repository of knowledge and historical. However, *hurkiyas* lost their importance and patronage by English subjugation of Kumaon by English East India Company. Although the folklores have been academically researched, documented, catalogued and published in recent times, has not been enough research about the performers of these folklores. The writers never do justice to the art of these bards. With the dawn of modern mass entertainment poses threat to the art practiced by *hurkiyas*. Several artists are trying to revive the art form so that both the art and the artist can thrive.

#### Notes:

- [1] Lacomte-Tilouine and De Sales, Words of Truth: Authority and Agency in Ritual Speeches in the Himalayas, 180.
- [2] Lacomte-Tilouine and De Sales, Words of Truth: Authority and Agency in Ritual Speeches in the Himalayas, 181.
- [3] Lacomte-Tilouine and De Sales, Words of Truth: Authority and Agency in Ritual Speeches in the Himalayas, 181.
- [4] In conversation with Vinod Kumar, 2020.
- [5] In conversation with Jagdish Ram, 2020.
- [6] In conversation with Ramlal, 2020.
- [7] Shukla and Purohit, Theories and Practices of Hurkiya Theatre in Uttarakhand.
- [8] Gaborieau, *Himalayan Folklore of Kumaon and West Nepal*, 15.
- [9] Marie-Therese, *Himalaya: The Epics of Kumaon*, 26.
- [10] Marie-Therese, *Himalaya: The Epics of Kumaon*, 26.

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1. Atkinson, E.T. *Himalayan Districts of North-Western Provinces*. London: Cosmo, (1882) 1981.
2. Lecomte-Tilouin, Marie and Anne de Sales. Words of Truth: Authority, Ritual and Legal Speeches in the Himalayas. *Oral Tradition*, 30(2) (2016): 17-37.
3. Oakley, E.S. and T.S. Gairola. *Himalayan Folklore*. Allahabad: Government of India, 1956.
4. Pokharia, Dev Singh. *Kumaoni Lokgeet aur Lokgathaen*. Bareilly: Pookharia, 1996.
5. Roy Anand, Mily. ‘Folk legends as Mirrors of People’s Expressions in Kumaon and Gharwal’. *Indian Folklore Research journal*, no. 10(1): 106-31.
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Of all these practices what hurts the soul of Dinshawji is the changing of place names. He knows that the name of any place symbolises the culture and history of a particular community. Parsis lived in Bombay and so many areas of Bombay had the name of Parsi. The original origin name gave a cultural, religious and emotional affiliation to the Parsi community living in Bombay. They had the emotional bonding with the place. The change the name of the place by Shiv Sena means to cut off them from their roots and reduce them to a refugee on the planet earth. Therefore, Dinshawji vehemently reacts to the practice of Shiv Sena:

“ ‘ Why change the names? *Saala* sisterfuckers! Hut atma Chowk (Flora Fountain) with Flora Fountain?’ (73-74)”

The process of political marginalisation begins with erasing the culture of a particular community. The name of a place offers a vista to a particular community. When they enter a world of their cultural and religious history. The “name” serves as a bridge between a community and its cultural past. By changing the name, the community becomes disconnected and the persons belonging to that particular community lose their cultural identity to that place where they have been living since their birth. This is the cultural alienation caused by the name changing politics of Shiv Sena. In this context, friend Gustad Noble’s interjection, “ ‘Why worry about it? I say, if it keeps the roads give them a few roads rename. Keep them occupied. What’s in a name!’ (74)”, suggests that the place’s name holds a cultural significance. Renaming the place erases one’s cultural identity. He says:

“ You are wrong. Names are so important. ....I live in Sleater Road. If the name disappear. My whole life I have come to work at Flora Fountain. Now the name changes. So what happens to the life I have lived? Was I living the wrong life? What names? Will I get a second chance to live it all again, with these new names? What happens to my life. Rubbed out just like that? Tell me!’ (74)”

The emotional bonding with the place’s name has well been described by Dinshawji. He is worried about cultural identity which is being erased by the name changing politics of the fundamentalist group Shiv Sena. The identity of a person or community is linked to a place where he/she has lived his/her life. Erasing the name means erasing the social identity. Renaming the place’s name is a hidden political process. Dinshawji, as a marginalised Parsi character, is well aware of this process of political marginalisation and reacts over the regional politics of Shiv Sena in Maharashtra.

The anger of Dinshawji is a reaction in the marginalised community to the divisive politics of Shiv Sena. Such divisive politics is nothing but to polarise the people of Bombay and elsewhere in India against the minority groups such as Muslims and Parsis. Rohinton Mistry, through *Such a Long Journey*, already anticipates the rise of Hindutva fundamentalism that is going to be a curse for a secular nation. It is this the dormant fear and tension of the Parsi community. Mistry employs Dinshawji as a character who becomes the voice of the marginalised community in India against the rise of Hindutva fundamentalism. Initially, Mistry presents him as a person with various follies. His sexual innuendos mask him as a comic character. But once the mask is removed from his face, he emerges as a real hero who strongly resists the political marginalisation of Bombay. The issue raised by him is an issue of the survival of the marginalised community which promises the fundamental rights to its citizen. The violation of the rights of renaming the place’s name questions the pluralist spirit of India.

Gramsci, in his “Letter”, 7 Sept., 1931, explains how one dominant social group exercises power over the entire nation: “State is simply a “Coercive apparatus” that exercises power over the entire nation through supposedly civilizing apparatuses by means of which “the hegemony of one group over the entire nation” is exercised(103).” The renaming of place names under the pressure of Shiv Sena, pinpointed by Mistry in “Such a Long Journey”, is a clear violation of Gramsci’s notion of State as a ‘Coercive apparatus’. This political practice is a clear

International Conference on  
Global Trends in English Language, Literature and Linguistics  
17 & 18 July, 2021

Jointly organized by: School of Languages, Literature and Linguistics, EU. 'Research Culture Society',  
'Scientific Research Association' and English Literature Club.

Rohinton Mistry's "A Fine Balance": A Realistic Picture of Caste  
Oppression in the Rural India

Prabhat Kumar

Research Scholar, P.G. Department of English, Patna University, Patna, Bihar, India

Email - prabhatkumar069@gmail.com

**Abstract:** *The present abstract proposes to analyse the menace of caste oppression in the rural India in the light of Rohinton Mistry's novel, "A Fine Balance" (1995). For the post-modern readers, the issue of caste oppression might be obsolete, but it conceptualizes Mistry's understanding of Literature as a social discourse as it reflects the author's concerns for the marginalised. The chapter "In a Village by a River" in "A Fine Balance" is a realistic picture of caste oppression in the rural India, exposing atrocity, violence, killings and rape being perpetrated by the upper caste against the Chamaar community, and thus relegating them to the periphery of social hierarchy to suffer eternally. The present abstract focuses on the past story of two of the principal characters, Om and Ishvar of how their forefathers have been immolated by the upper caste Thakur out of caste jealousy. Mistry's blend of realism with the tragic tale of Om and Ishvar (Chamaar-cum-tailors) raises an issue of social equality in a country which claims to be democratic constitutionally. The traumatic experience of Chamaar caste shown in the novel clearly confirms the fact that the practice of caste system still exists in India, and Mistry's "A Fine Balance" is an artistic resilience by the marginalised against the tyranny of the upper caste.*

**Key words:** *Caste Oppression, Marginalised, Realism, Social Discourse.*

1. INTRODUCTION:

Through the chapter, "In a Village by a River", Mistry shows the horrible practices of caste oppression in the rural India. The narrative wheels back to the pre-independent India in a village of Chamaar Caste where the forefathers of Omprakash and Ishvar Darji used to be lived. The story of Omprakash and Ishvar becoming tailors from leather workers is deep rooted in a village where the upper-castes dominate the lower-castes in the most inhuman manner. The atrocity, brutality and violence perpetrated by the upper-caste takes us back to the ancient time of feudal system of India where the untouchables were treated like worse than animals. In fact, the story of the forefathers of Om and Ishvar Darji reminds us of the laws of "Manu Smriti", a radical Brahminical text, which justifies the caste oppression as natural and religious: "God said the duty of a Shudra is to serve the upper varnas faithfully with devotion and without grumbling." ( qutd. In Manu 1-91)<sup>1</sup>

1.1 In a Village by a River: A Realistic Picture of Caste Oppression

The story unfolds the pathetic condition of Chamaar caste in a village during the pre-independent India. Chamaar caste used to be one of the peripheral rungs in the social ladder of caste system. As the story begins, we are introduced to Dukhi Mochi in his childhood. Dukhi is the father of Ishvar and Narayan and grandfather of Omprakash. The story revolves around the fatal experience of Dukhi born in a Chamaar community. He sends his two sons, Ishvar and Narayan, to his muslim friend Ashraf to be apprenticed as a tailor. The decision to change the vocation of Chamaar

community was not so easy and safe for Dukhi as he had to face the repercussions' of the upper-castes, especially by Thakurs and Brahmins of his village for breaking the 'social law' of the world. This is how the apprehensions have been expressed by his fellows: " 'Dukhi Mochi has gone mad,' ..... 'With wide-open eyes he is bringing destruction upon his household.' ..... someone had dared to break the timeless chain of caste, retribution was bound to be swift (Mistry, 95)<sup>2</sup>."

The aforementioned description shows how the caste system in India has paralysed the progressive humanity where a person's vocation is preordained by his/her birth. Dukhi has learnt all the lessons of social reality through the discussion of his father when he was five. This is how the caste servility has injected in his psyche:

"Dukhi Mochi's decision to turn his sons into tailors was indeed courageous, considering that the prime of his own life had been spent in obedient compliance with the traditions of the caste system. Like his forefathers before him, he had accepted from childhood the occupation preordained for his present incarnation (Mistry, 95)<sup>3</sup>."

Dukhi does not want his sons to live with the traditions of the caste system. So he decides to turn them into tailors. However, Mistry continues to remind the readers about the caste exploitation in the rural India through the experience of Dukhi Chamaar. Those who are born in an age of computer and technology, the description of Caste oppression might seem obsolete for them. But, if we analyse the history of Dalit politics in India, the story of Dukhi Chamaar and his family provides a reasonable background to the emergence of this political force. Mistry shows that how a person born in a Chamaar caste needs no schooling to behave in the society:

"Besides tanning and leather-working, Dukhi learned what it was to be a Chamaar, an untouchable in village society. No special instruction was necessary for this part of his education. Like the filth of dead animals which covered him and his father as they worked, the ethos of caste system was smeared everywhere. And if that was not enough, the talk of adults, the conversations between his mother and father, filled the gaps in his knowledge of the world (Mistry, 96)<sup>4</sup>."

Mistry continues to describe the graphic picture of caste exploitation to his modern readers so that they could sense the predicament of Om and Ishvar *Darji* later on in the novel. We have a collage of how the lower-caste is being exploited and oppressed and thus being relegated to the periphery of social ladder:

" 'Dosu got a whipping for getting too close to the well. He never learns (Mistry, 96)<sup>5</sup> ' "

" ' And you won't for many more. She must be hiding in her hut. She refused to go to the field with zamindar's son, so they shaved her head and walked her naked through the square (97)<sup>6</sup> ' "

The aforementioned description shows how the upper-caste brutally humiliated the lower-caste in the society. Even now, we hear such crimes against Dalit woman in India which clearly raises a question mark on us as a progressive society. The caste oppression still exists in India, though its modus operandi has been slightly changed. Off and on, the country is stirred by this inhuman practice, and leaves us think whether we deserve a human status in the chain of social ladder.

Dukhi has internalised all the imaginary and real offences prohibited for the Chamaar caste in the society: "he mastered a full catalogue of the real and imaginary crimes a low-caste person could commit, and the corresponding punishments were engraved upon his memory. By the time he enter his teens, he had acquired all the knowledge he would need to perceive that invisible line of caste he could never cross, to survive in the village like his ancestors, with humiliation and forbearance as his constant companions (Mistry, 97)<sup>7</sup>."

## 1.2 Issue of Rape with a Dalit woman

As the time passes, Dukhi got married with Roopa. They became parent of two sons – Ishvar and Narayan. In order to feed the children well, Roopa pays a nocturnal visit to the orchard of the upper-caste where she is raped forcefully. Being caught by the night guard, she pleads him to let her go. But, he bargains with her. At his bargaining, she says: " 'I don't have anything. That's why I came here in the night, for the sake of my child (Mistry, 98)<sup>8</sup> ' " The person hired to watch the

orchard takes advantage of her helplessness and compels her to undress the clothes: "He led her cringing to the cot and ripped open her top three buttons. She crossed her arms in front. He pulled them down and buried his mouth in her breasts, laughing softly as she tried to squirm away (Mistry, 99)<sup>9</sup>." She is raped silently. Her helplessness becomes the opportunity for the man at guard.

Mistry, through this rape scene of Roopa, presents us a hidden reality of society where the Dalit women are being sexually assaulted and raped for their caste identity. Another incident of Caste oppression we witness when Isvar and Narayan dares to enter the school and touches the books and chinks of the children of the upper-caste out of curiosity. Being caught by the masterji, they are beaten badly for 'defiling the tools of learning and knowledge' (Mistry, 110)<sup>10</sup>. When Dukhi sees the red mark on the buttock of his children, his heart comes out of pain. So he decides to demand justice from Pandit Lalluram. Pandit Lalluram enjoyed a great respect among the neighbourhood as he is known to promote communal harmony with the words of his wisdom. In fact, Pandit Lalluram is factional character who justifies the laws of "Manu Smriti". According to him, one should not cross the barriers of caste. When Dukhi relates the school incident to him, the Pandit hypocritically sympathises him by sermonising him the lessons of "Manu Smriti":

" ' Dukhi Mochi, you are a good, hardworking man. I have known you for a long time. You always try to do your duty, don't you, according to your caste?..... Which is wise, for it is the path to happiness. Otherwise, there would be chaos in the universe. You understand there are four varnas in society: Brahmin, Kshatriys, Vaishya, and Shudra. Each of us belong to one of these four varnas, and they cannot mix. Correct? (Mistry, 113)<sup>11</sup>"

He goes on to justify the teacher's beating to Dukhi's sons in the light of Hindu's scriptures:

" ' Your children entered the classroom. They polluted the place. They touched instruments of learning. They defiled slates and chinks, which upper-caste children would touch. You are lucky there wasn't a holy book like the Bhagavad Gita in that cupboard, no sacred texts. Or the punishment would have been more final (Mistry, 113-14)<sup>12</sup>. ' "

Mistry, through this passage, highlights the extreme practices of caste oppression in Hinduism. The learned Pandit cleverly dissuades Dukhi's argument that he has been victimised by the upper-caste. He is made to believe that the punishment is natural and proportionate according to the 'crimes' committed by his sons. This is the dark reality of caste system in Hindu society where a low-born child is devoid of primary education on the basis of his caste. The untouchability has fragmented human society into pieces where human values are on periphery.

#### 1.4 Changing a profession for the Lower Caste: Challenges and Repercussions

Dukhi now decides to send his sons to his friend Ashraf to be apprenticed as tailors. Ashraf runs a shop named Muzaffar Tailoring Company in a small town. He promises to teach Ishvar and Narayan the sewing skills out of friendship with Dukhi. Mistry, through the character of Ashraf, a muslim tailor, shows a universal brotherhood across the two opposite communities in India. Ashraf cares for Ishvar and Narayan just like his own children. Ishvar and Narayan also reciprocate the filial love for Ashraf Chacha. This is how Dukhi prepares his sons in advance for their new journey of life:

" ' Ashraf Chacha is going to turn you into tailors like himself. From now on, you are not cobblers – if someone asks your name, don't say Ishvar Mochi and Narayan Mochi. From now on you are Ishvar Darji and Narayan Darji (Mistry, 115)<sup>13</sup>. ' "

The change of title from Mochi to Darji is a paradigm shift in the life of Chamaar community. 'Tailoring' is thus a metaphor that promises to uplift the social status of Ishvar and Narayan Mochi. Mistry, through the character of Ashraf, subtly hints at the hypocrisy of the political parties who falsely claim to eliminate the caste system from India. The Chamaar boys uplift their social status by learning tailoring skills from a radically opposite community. The amount of love, affection and care Ishvar and Narayan receive from his father's friend Ashraf fills their heart with a sense of gratitude for him. The men from their own community such as the Thakurs and Brahmins consider them untouchables and exploit them to a great extent, but a man from Muslim community embraces

## LIFE SATISFACTION OF ELDERLY PEOPLE IN RELATION TO THEIR DEMOGRAPHIC DETAILS

• Smita Singh & Santosh Kumar

**Abstract** - The elderly people's health has become a priority as their numbers are growing and they are increasingly becoming vulnerable to physical and mental diseases. Studies show that an elderly person's health depends on his or her utilization of health knowledge in daily life. Hence, here we investigated the contributing factors of knowledge utilization in the elderly population.

The Present study was conducted on a 100 (50 Joint family and 50 Nuclear family) sample of elderly people from both rural and urban areas of Bhojpur district in Bihar. The main purpose of the study was to examine the life satisfaction of elderly people in terms of their family size concept. Life Satisfaction Scale developed by Alam and Srivastava (1998) and self-prepared Personal Data Sheet was applied on selected sample. The obtained data were compiled and statistically analyzed. The results revealed that the life satisfaction of elderly people was positively and significantly correlated with their educational level, the social satisfaction level of joint family respondents was significantly different from nuclear family respondents, the urban respondents have more life satisfaction comparatively to rural respondents and the single-family elderly people had more life satisfaction level comparatively to their joint family respondents.

**INTRODUCTION** - India is an almost youngest country in the world and will be elder like China in the coming decade. The average age of the world population has been on the rise. From the beginning of 19th century to the end of 20th century, life expectancy increased from 47 to 78 years and exceeded 80 years. The elderly's perspective is traditional, and does not match the new generation's mechanical life. Phenomena like the elderly nursing home is a taboo in their opinion, and value conflict is on the rise. The aging of the population has been associated with an increased significance of elderly health. The health of this group has a significant impact on their quality of life as well as on that of other groups. Although aging is a physiological process and does not directly lead to disease, it is accompanied by various problems that may include physiological, mental and social aspects as a result of reduced vital capacities. Most elderly people are affected by chronic and debilitating diseases, and experience the physiological changes of aging as well. Therefore, in addition to promoting the extent of life through improvement of healthy aging, it is also important to focus on promoting its quality.

Life satisfaction is the way a person perceives how his or her life has been and how they feel about it is going to be in the future, a measure of well-being. In the modern life, which is so full of stresses of various kinds, life satisfaction has acquired supreme significance. Life satisfaction is manifested through health, economic, marital, personal, social and job satisfaction. Lack of satisfaction may be reflected in lack of adjustment in either of the areas identified earlier herein. The process of adjustment also by its inherent nature involves active coping with internal and external satisfaction and dissatisfaction.

Life satisfaction of any people are governed and affected from different demographic factors like educational level, residential area, family type and size, socio-economic status, as well as the psychological factors. In the present study, the researcher tried to explore the relationship of life satisfaction with different demographic details to understand the importance of the same.

Commonly two types of family namely single and joint family exist which indirectly or indirectly associated with people's life satisfaction. Today, still the concept of joint family exists in our rural Indian whereas the concept of single family exists in urban areas. By means of over responsibilities in joint family people want to live separate as single family. In this regard the level of life satisfaction effects from family size concept and it seems different among married people.

There are various research studies related to life satisfaction and other associated factors are available that can help in this research work. In a study of Sousa and Lyubomirsky (2000), people's hostility forward other

- Research Scholar, Department of Psychology, V. K. S. University, Ara (Bihar)  
&
- Assistant Prof. of Psychology, A. S. College, Bikramganj, (Rohtas) Bihar

Characterization of metric space on fuzzy set

Anil Kumar

Mathematics Department, Assistant Professor

A. S. College, Bikramganj, Rohtas

Veer Kunwar Singh University (VKSU), Ara, Bihar, India

Abstract:

The present paper deals the definition of pseudo-metric space and metric space defined on the fuzzy set which known as fuzzy pseudo-metric space and fuzzy metric space and it forms a base of some fuzzy topology  $\delta_a$  for non-empty set  $X$ . we call it a fuzzy metric topology. I also discuss some basic properties.

Keyword: Fuzzy Sets, Metric Spaces, Topological Spaces

Introduction:

The concept of fuzzy set theory was introduced by an eminent American Cyberneticist, Mathematician, computer scientist and electrical engineer of Artificial Intelligence Lotfi Aliasker Zadeh, University of California, Berkeley in 1965 by his research paper "Fuzzy Sets" [1]. As we know the concept of fuzzy metric space was introduced in different ways by some well-known mathematician viz. Kramosil and Michale, further modified by George and Veeramani [2].

**Basic definitions****Definition 1.1 :**(L.A. Zadeh [1]) **Fuzzy Set**

Let  $X$  be a space of points (objects), with a generic element of  $X$  denoted by  $x$ . Thus  $X=\{x\}$ .

A fuzzy set (class)  $A$  in  $X$  is characterized by a *membership (characteristic)* function  $f_A(x)$  which associates with each point in  $X$  a real number in the interval  $[0, 1]$ , with the value of  $f_A(x)$  at  $x$  representing the "grade of membership" of  $x$  in  $A$ . i.e.

A fuzzy set  $A$  on the domain  $X$  is defined as a mapping

$$A: X \rightarrow [0, 1], \text{ where } [0, 1] = I \text{ is the range of } A.$$

**Definition 1.2: Fuzzy Space**

The family of all fuzzy sets on  $X$  is  $I^X$ , consisting of all the mappings from  $X$  to  $I$ ,  $I^X$  is called the fuzzy space  $X \times I$  also represents the fuzzy space, in this case, the fuzzy set

$$A \subseteq X \times I, A \in I^X$$

is called a crisp subset on  $X$

**Definition 1.3: Support**

For every fuzzy subset  $A \in I^X$ , support of A is defined by

$$\text{supp}(A) = \{x \in X: A(x) > 0\}$$

**Definition 1.4: Fuzzy point**

A fuzzy point on X is a fuzzy subset  $p_x^\alpha(y) = \begin{cases} \alpha, & \text{if } y = x \\ 0, & \text{if } y \neq x \end{cases}$

The set of all fuzzy points on X is denoted by  $P_t(I^X)$

**Definition 1.5: Fuzzy Topology**

A family  $\delta \subseteq I^X$  of fuzzy sets is called a fuzzy topology for X if

- (i)  $\forall \alpha \in I, \alpha \in \delta$
- (ii)  $\forall A, B \in \delta \Rightarrow A \wedge B \in \delta$
- (iii)  $\forall (A_j)_{j \in J} \in \delta \Rightarrow \forall j \in J, A_j \in \delta$

The pair  $(X, \delta)$  is called a fuzzy topological space. The elements of  $\delta$  are called fuzzy open sets. A fuzzy set  $k$  is called fuzzy closed set if  $k^c \in \delta$ .

**Definition 1.6: Fuzzy Pseudo metric-space [5]**

Let  $d: X \times X \rightarrow [0, \infty)$ , satisfying the conditions

- (i)  $d(p_x^a, p_y^b) = 0$  where  $a \leq b$
- (ii)  $d(p_x^a, p_y^b) = d((p_y^b)^c, (p_x^a)^c)$
- (iii)  $d(p_x^a, p_z^e) \leq d(p_x^a, p_y^b) + d(p_y^b, p_z^e)$
- (iv) if  $d(p_x^a, p_y^b) < r$ , where  $r > 0$  then there exists  $e > a$  such that  $d(p_x^e, p_y^b) < r$ .

then  $d(p_x^a, p_y^b)$  is called fuzzy pseudo-metric and  $(X, d)$  is called fuzzy pseudo-metric space.

**Definition 1.7: Fuzzy Metric Sapce (A. George and P. Veeramani [2]).**

A fuzzy metric space on a non-empty set X is a pair  $(m, *)$  such that M is a fuzzy set on  $X \times X \times (0, +\infty)$  and  $*$  is a continuous t-norm satisfying the following conditions:

- (i)  $M(x, y, t) > 0$  for all  $x, y \in X$  and all  $t > 0$ ;
- (ii)  $M(x, y, t) = 1$  for  $t > 0$  if and only if  $x = y$ ;
- (iii)  $M(x, y, t) = M(y, x, t)$  for all  $x, y \in X$  and all  $t > 0$ ;
- (iv)  $M(x, z, t + s) \geq M(x, y, t) * M(y, z, s)$  for all  $x, y, z \in X$  and  $t, s > 0$ ;
- (v)  $M(x, y, .)$  is continuous for each  $x, y \in X$ .

**Definition 1.8: Fuzzy Metric Space (Kramosil and Michalek [3]).**

A metric space is a triple  $(X, M, *)$  where  $X$  is a non-empty set,  $*$  is a continuous  $t$ -norm and  $M$  is a fuzzy set on  $X^2 \times [0, \infty)$ , satisfying the following properties:

- (i)  $M(x, y, 0) = 0$  for all  $x, y \in X$ ,
- (ii)  $M(x, y, t) = 1$  for all  $t > 0$  iff  $x = y$ ,
- (iii)  $M(x, y, t) = M(y, x, t)$  for all  $x, y \in X$  and  $t > 0$ ,
- (iv)  $M(x, y, \cdot): [0, +\infty[ \rightarrow [0, 1]$  is left continuous for all  $x, y \in X$ ,
- (v)  $M(x, z, t + s) \geq M(x, y, t) * M(y, z, s)$  for all  $x, y, z \in X$  and  $t, s > 0$ .

**Definition 1.9: Fuzzy Metric Space [5]**

Let  $d: X \times X \rightarrow [0, \infty)$ , satisfying the conditions

- (i)  $d(p_x^a, p_y^b) = 0$  where  $a \leq b$
- (ii)  $d(p_x^a, p_y^b) = d((p_y^b)^c, (p_x^a)^c)$
- (iii)  $d(p_x^a, p_z^e) \leq d(p_x^a, p_y^b) + d(p_y^b, p_z^e)$
- (iv) if  $d(p_x^a, p_y^b) < r$ , where  $r > 0$  then there exists  $e > a$  such that  $d(p_x^a, p_y^b) < r$
- (v)  $d(p_x^a, p_y^b) = 0$  then  $x = y$  and  $a \leq b$

then the pair  $(X, d)$  is called fuzzy metric space and  $d$  is called fuzzy metric on  $X$ .

**Definition 1.10: Sphere**

Let  $B(p_{x_0}^{a_0}, r) = \{p_x^a : p_x^a \in Q^r p_{x_0}^{a_0}\}$ , where  $Q^r p_{x_0}^{a_0} = \{p_x^a : d(p_x^a, p_{x_0}^{a_0}) < r\}$ ,  $B(p_{x_0}^{a_0}, r)$  is called a sphere with center  $p_{x_0}^{a_0}$  and radius  $r$ .

**Definition 1.11: Fuzzy open**

A set  $A$  is called fuzzy open if and only if for every point  $p_x^a \in A$ , there exists  $r > 0$  such that  $B(p_x^a, r) \subseteq A$ .

**Definition 1.12: Neighborhood**

$A$  is called a neighborhood of point  $p_x^a$  if and only if there exists  $B \in \delta$  (family of fuzzy open sets) such that  $p_x^a \in B \subseteq A$ .

**Definition 1.13: Fuzzy  $T_1$ -space**

A fuzzy topological space  $(X, \delta)$  is a fuzzy  $T_1$  space if and only if every point  $p_x^a$  is fuzzy closed.

**Definition 1.14: Fuzzy Regular space**

A fuzzy topological space  $(X, \delta)$  is fuzzy regular space if and only if, for any point  $p_x^a$  and its any open neighborhood  $A$ , there is a fuzzy set  $B$  such that  $p_x^a \in B^\circ \subseteq \bar{B} \subseteq A$ ,

And  $A$  is a neighborhood of  $B$ .





# Low frequency AC conduction and dielectric spectroscopy investigations on graphene oxide using dielectric modulus approach

Ramesh Kumar<sup>a</sup>, Amarjeet Kaur<sup>b,\*</sup>

<sup>a</sup> Department of Physics, Anjabit Singh College, Bikramganj, V.K.S.U, Ara, Bihar 802212, India

<sup>b</sup> Department of Physics and Astrophysics, University of Delhi, Delhi 110007, India

## ARTICLE INFO

### Keywords:

Graphene oxide  
Ac conductivity  
Dielectric permittivity  
Dielectric modulus

## ABSTRACT

Graphene oxide (GO) was chemically synthesized by improved Hummer's method. The synthesis was confirmed by Raman and FT-IR spectroscopy. The dielectric relaxation studies of graphene oxide (GO) in the frequency range of 100 Hz - 1 MHz and in the temperature range of 77 - 475 K are reported here. At lower temperatures (<250 K), the measured ac conductivity shows linear variation with frequency. Whereas, at higher temperatures, it is almost independent of frequency as dc conductivity predominates in this region. In the dielectric measurement studies, it is observed that dielectric constant increases rapidly with temperature up to 300 K. Broad loss peaks are observed in the temperature region where the measured ac conductivity approaches dc conductivity. The behaviour of both high values of real as well as imaginary part of complex permittivity has been thoroughly investigated in the light of dielectric modulus formalism and is attributed to the interfacial polarization between insulating  $sp^3$  region and conducting  $sp^2$  domains. The material exhibits great potential towards giant dielectric constant applications.

## 1. Introduction

The frequency dependent dielectric measurements are considered as an additional important tool for the understanding of charge transport mechanism [1–9]. In the low frequency region, the dielectric measurements provide an information about the motion of charge carriers [1,10]. The ac conduction mechanisms of disordered materials are thoroughly discussed in the literature [10,11–14]. The temperature and frequency dependent ac conduction behaviour is explained by Mott and Davis [11] in terms of hopping model. This model is further supported by various researchers [12–14]. Therefore, the conduction behaviour of bulk disordered materials can be easily explained with Mott's variable range hopping (VRH) or with some other well established models. But, the ac conduction behaviour of the low dimensional and disordered material still needs greatest attention. The ac conduction mechanism of GO is still not clear after a decade of its discovery, only limited number of research articles are available in literature [1–4]. Huang et al. [1] reported the four stage temperature dependent insulator-semiconductor-insulator-semiconductor transition of GO at temperatures between - 40 and 150 °C. A recently published report [2] on the dielectric properties of GO has a brief discussion about its dependence of

dielectric loss and permittivity on temperature. Nioua et al. [3] have reported and discussed the ac conductivity behaviour of rGO-epoxy resin composite by Jonscher's law, with relaxation processes characterized by a broad distribution of relaxation times. The Cole-Cole plot shows the single electrical conduction mechanism. The ac conduction of the composite at percolation threshold is explained on the basis of capacitive pathways and electron tunneling. A new theory for graphene polymer composites [4] shows that the electrical conductivity increases with rise in frequency but dielectric permittivity decreases. Sahu et al. [5] have fabricated an environment friendly nanocomposite and studied the dielectric relaxation behaviour of silver nanoparticles and graphene oxide embedded poly(vinyl alcohol) nanocomposite films and used Nyquist plots to show the decrease in bulk resistance with temperature.

In this paper, we have reported our investigations on the electrical properties of GO in the temperature range of 77 - 475 K. The broadband dielectric spectroscopy of electrical properties of GO is reported in the frequency range of 100 Hz – 1 MHz. The dielectric spectroscopy provides highly accurate and simple measurements of electrical properties without influencing reduction parameters. We have observed a large value of dielectric constant with high dielectric loss for GO sample in low frequency regime. For such behaviour of complex dielectric

\* Corresponding author.

E-mail addresses: [rameshphysicsdu@gmail.com](mailto:rameshphysicsdu@gmail.com) (R. Kumar), [amarkaur@physics.du.ac.in](mailto:amarkaur@physics.du.ac.in) (A. Kaur).

<https://doi.org/10.1016/j.diamond.2021.108633>

Received 5 May 2021; Received in revised form 11 September 2021; Accepted 27 September 2021

Available online 1 October 2021

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constant having higher values and not very well defined peaks, the modulus approach [1] is more suitable. Our data on the dielectric measurements of GO sample is systematically analysed using modulus approach and is explained on the basis of effect of interfacial polarization.

## 2. Experimental details

### 2.1. Sample preparation

Graphene oxide was synthesized by improved Hummer's method [15–18]. In this method, oxidation of graphite flakes take place in the presence of potassium permanganate and mixture of conc.  $\text{H}_2\text{SO}_4/\text{H}_3\text{PO}_4$ . The mixture is stirred for continuously 12 h at 50 °C. Then washed with water, hydrochloric acid, ethanol and ether, respectively to obtain solid powder of GO.

### 2.2. Sample characterization

The structural investigations of the prepared samples were performed using Raman and FTIR spectrometers. For the Raman studies, we have used Renishaw InVia Reflex micro Raman spectrometer in the range of 400–4000  $\text{cm}^{-1}$ . FTIR measurement performed at RX I spectrometer (Perkin Elmer). The surface Morphology of GO sample was investigated with the help of Transmission Electron Microscope (TEM), Technai G<sup>2</sup> T30, U-Twin by FEI Netherlands. The broadband dielectric spectroscopy of the prepared sample was recorded in the temperature range of 77–475 K by using Waynekerr 6540A 120 MHz precession impedance analyser in the frequency range of 100 Hz–1 MHz in an indigenously made three terminal measurement set-up with cryostat as shown in Fig. 1. The dc conductivity was measured using Keithley's 236 SMU and Keithley's 2000 DMM (digital multimeter) in the temperature range 77–475 K. The ac and dc conductivity measurements were

performed after the deposition of gold electrodes on both sides of the samples.

## 3. Results and discussion

The synthesis of GO sample is estimated with the help of Raman spectroscopy. It is a reliable technique to determine the structural properties of carbon based materials [1,18–21]. The Raman spectrum of GO sample (Fig. 2) consists of D and G band at 1360  $\text{cm}^{-1}$  and 1590  $\text{cm}^{-1}$  respectively. The G band corresponds to the in plane bond stretching vibrations of  $\text{sp}^2$  carbon–carbon atoms [19–21]. The D band is attributed to the induced defects or due to the  $\text{sp}^3$  hybridization of carbon atoms that corresponds to out-of-plane vibrational modes [19–21]. The D band mode is forbidden in the perfect graphite and only becomes active in the presence of disorder. The peaks towards higher wavenumber side at 2720 and 2950  $\text{cm}^{-1}$  are assigned as second order band of 2D and D' + G' bands [18], respectively. The FT-IR spectrum (Fig. 3) of the GO sample is recorded in the transmission mode using KBr method. The spectrum consists of characteristic bands corresponding to the attachment of specific oxygen functional groups to graphene sheets. The characteristic band corresponds to C=C of carbon atoms and their restricted vibration in the plane of carbon atoms is present at 1630  $\text{cm}^{-1}$  [10,22–24]. The peaks due to symmetric and asymmetric stretching of the epoxy groups are present at 1220  $\text{cm}^{-1}$  and 880  $\text{cm}^{-1}$ , respectively [18,22,24]. The peak at 850  $\text{cm}^{-1}$  corresponds to deformation vibration of the epoxy groups [18,22,24]. The peaks at 1600–1650  $\text{cm}^{-1}$  and 1750–1850  $\text{cm}^{-1}$  are attributed to the ketonic species [22,25,26]. The bands at 1070  $\text{cm}^{-1}$  and 3050–3800  $\text{cm}^{-1}$  are attributed to the hydroxyl groups such as phenol and all C–OH vibrations from COOH and  $\text{H}_2\text{O}$ , etc. [25,26]. TEM micrograph of GO sample is recorded and it is observed that the prepared sample consists of two dimensional sheets type structure as shown in Fig. 4.

The dielectric response of solids gives information about the orientational adjustments of dipoles with frictional losses and translational adjustments of mobile charges on the application of electric field.

In a time varying electric field, the complex dielectric permittivity can be expressed as

$$\varepsilon^*(\omega) = \varepsilon'(\omega) - i\varepsilon''(\omega) \quad (1)$$

The real and imaginary part of  $\varepsilon^*(\omega)$  is indication of the degree of polarization and the losses in the system of bound charges, respectively, exactly in a similar way as the free charges are ascribed to conductivity losses.

The real and imaginary part of complex conductivity are given as

$$\sigma^*(\omega) = \sigma(\omega) - i\sigma_1(\omega) \quad (2)$$

The real and imaginary part of conductivity given in Eq. (2) can be related to the real and imaginary part of  $\varepsilon^*(\omega)$  as

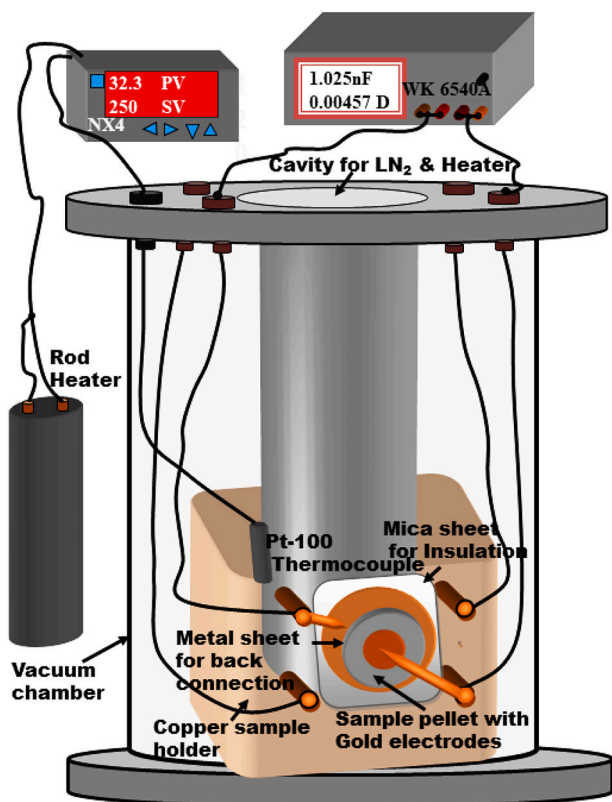


Fig. 1. Schematic of three terminal AC measurement set-up.

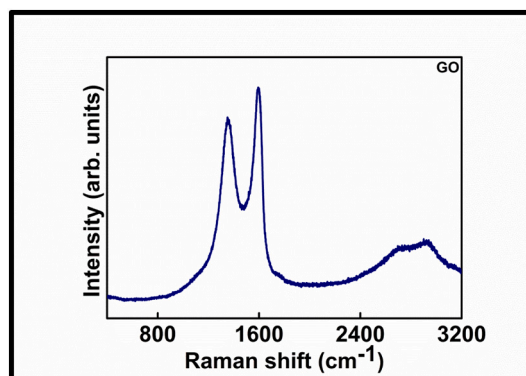


Fig. 2. Raman spectrum of GO.

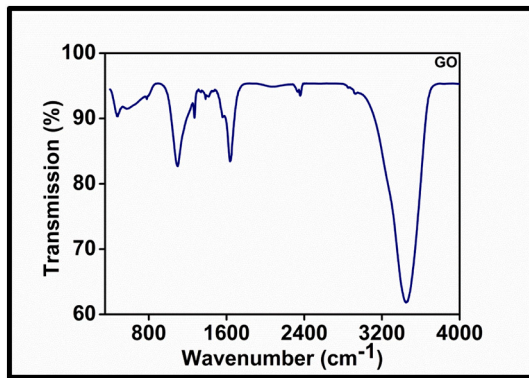


Fig. 3. FT-IR spectrum of GO.

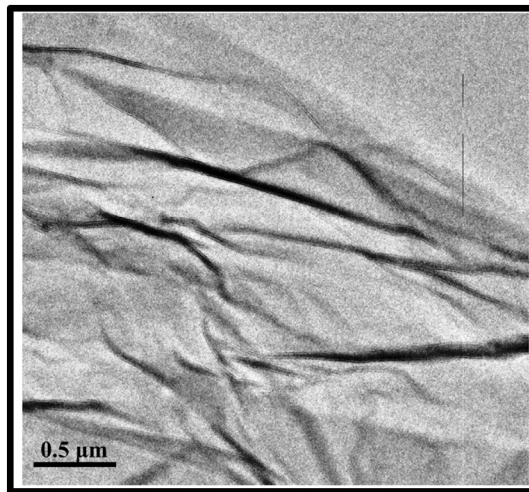


Fig. 4. TEM micrograph of GO.

$$\sigma(\omega) = \omega \epsilon_0 \epsilon''(\omega) \quad (3)$$

$$\sigma_1(\omega) = \omega \epsilon_0 [\epsilon'(\omega) - \epsilon_\infty] \quad (4)$$

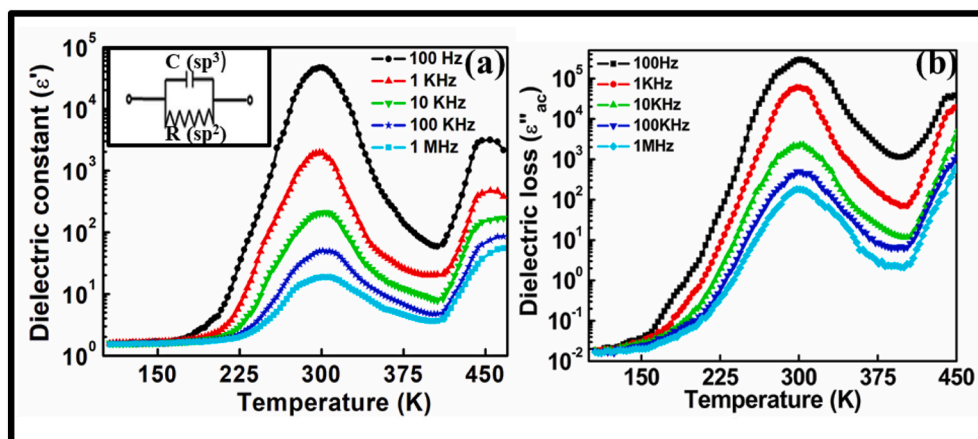
where,  $\epsilon_0$  is the free space permittivity and  $\omega$  is the angular frequency.

The variation of the dielectric constant ( $\epsilon'$ ) of graphene oxide with temperature in the temperature range of 77–475 K at five different frequencies is plotted in Fig. 5 (a). In the low temperature region, dielectric constant at a particular frequency is slowly varying function of

temperature. The dependence increases rapidly with increasing temperature up to 300 K at given frequencies. The dielectric constant starts decreasing after attaining maximum value at 300 K. This behaviour is consistent with a Debye-type dielectric dispersion characterized by a relaxation frequency,  $f_0$  [10,12,13,27]:

$$\epsilon'(\omega) - \epsilon_\infty(\omega) = \frac{\epsilon_0 - \epsilon_\infty}{\left\{ 1 + \left( \frac{f}{f_0} \right)^2 \right\}} \quad (5)$$

As evidence from Raman spectrum of the sample, a subsequent amount of conducting  $sp^2$  graphitic domains are present in the insulating  $sp^3$  matrix [1]. It may be visualized as the parallel network of resistors ( $sp^2$  domain) and capacitors ( $sp^3$  domain) (as shown in the inset of Fig. 5(a)). The increase in dielectric constant of GO with temperature may be due to highly conductive nature and positive temperature coefficient effect [2]. With further increase in the temperature above 300 K, the intercalated water molecules,  $CO_2$  and  $CO$  are completely removed [1]. This results in decreasing capacitive contribution and hence dielectric constant. The variation of the dielectric loss ( $\epsilon''_{ac}$ ) with temperature is shown in Fig. 5(b) at five different frequencies. The dielectric loss is calculated by subtracting the dc conductivity from measured ac conductivity [10,12,13,27]. It can be seen from Fig. 5(b) that the intensity of dielectric loss peak decreases with increase in frequency. The loss tangent behaviour of synthesized graphene oxide mainly depends upon the temperature. The maximum dielectric loss tangent increase as well as shifted towards higher frequency with increasing temperature. The Fig. 6 (a) and (b) shows the variation of the  $\epsilon'$  and  $\epsilon''_{ac}$  of GO in the frequency range of 100 Hz to 1 MHz at various temperatures. At low temperatures, the GO shows low values and weak frequency dependence of dielectric constant. As temperature increases, the  $\epsilon'$  value increases and exhibits a strong dependence on frequency. The magnitude of  $\epsilon'$  rises by four orders as the frequency decreases from 1 MHz to 100 Hz. The increase in the value of  $\epsilon'$  of GO can be attributed to the orientation and change in the dipole moment of functional groups present on the graphene oxide [2,28–30]. The higher value of  $\epsilon'$  at low frequencies may also be related to interfacial polarization, which occurs at the interface between reduced clusters and the unreduced  $sp^3$  matrix [1]. Beyond 300 K, dielectric constant starts decreasing up to 400 K and again attains second maximum value at 450 K. The second maxima may correspond to the phase transition of insulator type GO sample into semiconductor type rGO sample [1,17]. The dielectric loss tangent at lower frequencies gradually increases with frequency at all temperatures. However, it decreases with frequency, after reaching a maximum (peak), due to the reorientation of the polar groups present in the graphene oxide [2]. Fig. 7 (a) exhibits the log of measured ac conductivity ( $\log_{10} \sigma_m(\omega)$ ) as a function of  $1000/T$  at five different frequencies (100 Hz,

Fig. 5. (a) Dielectric constant ( $\epsilon'$ ) and (b) Dielectric loss ( $\epsilon''_{ac}$ ) as a function of temperature at five fixed frequencies.

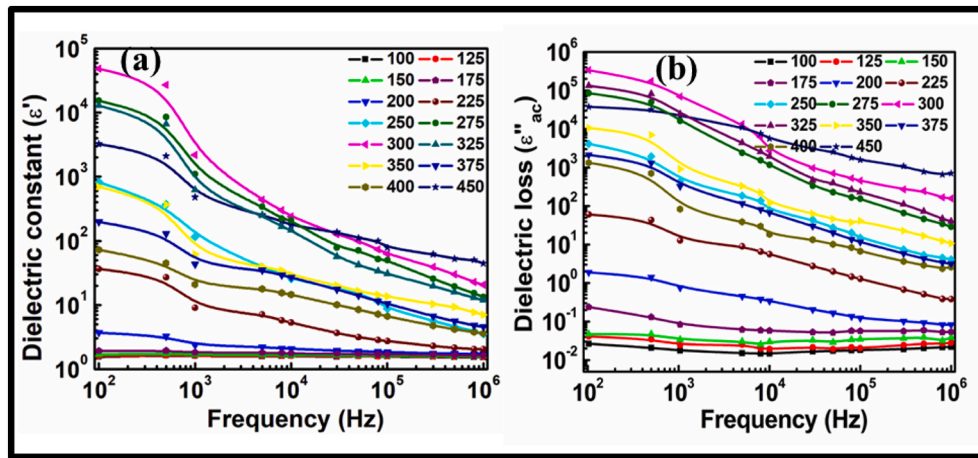


Fig. 6. (a) Dielectric constant ( $\epsilon'$ ) and (b) Dielectric loss ( $\epsilon''_{ac}$ ) as a function of frequency.

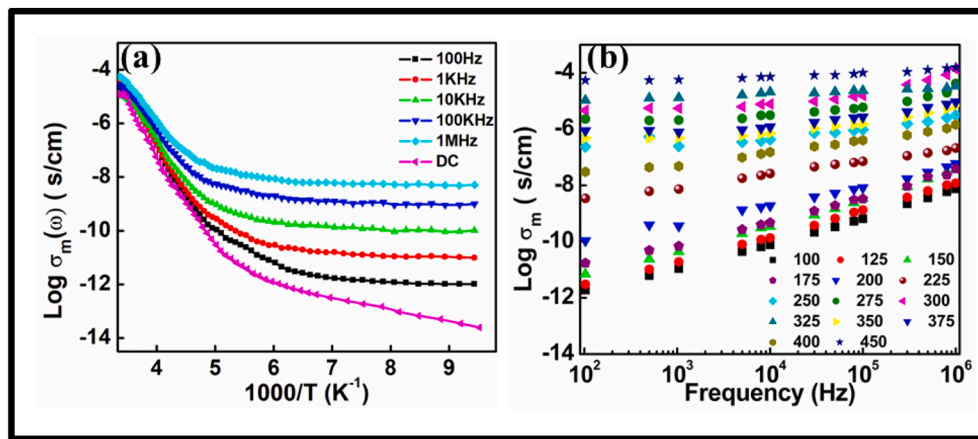


Fig. 7. (a) DC and measured ac conductivity as functions of reciprocal of temperature (b) Measured ac conductivity as a function of frequency.

1KHz, 10KHz, 100KHz and 1 MHz) along with dc conductivity. A rise in measured ac conductivity has been observed with frequency and temperature which merges into dc conductivity at higher temperature ( $\geq 250$  K) for both the samples. This is a common feature of disordered semiconductors or polymeric materials [31–32]. Fig. 7(b) represents the variation of measured ac conductivity with frequency in the range of 100 Hz to 1 MHz. With the increase in temperature, due to the thermal reduction of GO samples, the fraction of conducting  $sp^2$  graphitic domain increases. The reduction leads to the generation of new  $sp^2$  graphitic domains which are now smaller in size but more in number, thereby establishing more conductive path ways [18]. The conductivity increases with temperature due to hopping between these pathways. At higher temperatures ( $> 250$  K), the fraction of these conducting domains may increase to the extent that the number of percolating pathways becomes so high that electrical conductivity does not change with frequency and dc electrical conductivity dominates.

At low temperatures, the GO sample shows linear variation in electrical conductivity with frequency. The slope of the curves decreases with increasing temperature. The nature of curves starts changing after 250 K. The measured ac conductivity at higher temperature is almost independent of frequency as dc conductivity predominates in this region [10,12,27]. The loss peaks are also observed in this region (Fig. 5 (b)). Here the measured ac conductivity tends to approach dc conductivity especially at higher temperatures. The increase in electrical conductivity can be attributed to thermal activation and structural deformation [2]. The broad loss peaks suggests the distribution of relaxation times. There are several ways of dielectric data representation and we are using

dielectric modulus for further investigations. This approach is useful in the systems where dielectric dispersion is associated with large conductivity [31,32]. The electric modulus was introduced by McCrum et al. [33] and is defined as the reciprocal complex permittivity. It is widely used to reveal the dipolar contributions where dielectric relaxation peaks are not sharp. Macedo et al. [34] applied this formalism to ionic conductors. One of the primitive works using this approach was reported in 1975 in alkali silicate glasses by Macedo and Moynihan et al. [31]. This approach is now days used in characterizing  $MoS_2$ , MIS structures and several composite materials [35–37]. The dielectric modulus  $M^*(\omega)$ , can be represented as

$$M^*(\omega) = M'(\omega) - iM''(\omega) \quad (6)$$

In which real and imaginary parts are

$$M'(\omega) = \frac{\epsilon'(\omega)}{[\epsilon'(\omega)^2 + \epsilon''(\omega)^2]} \quad (7)$$

$$M''(\omega) = \frac{\epsilon''(\omega)}{[\epsilon'(\omega)^2 + \epsilon''(\omega)^2]} \quad (8)$$

The main advantage of using dielectric modulus approach is to deduce whether the dielectric response is independent of the nature of electrode and contact, absorbed impurity conduction and space-charge injection. These are important factors which should be taken care of during dielectric measurements [1,31].

The relaxation peak at low temperature is shifted towards high

frequencies with increase in temperature. The increase in peak frequency is related to the short relaxation time and increase in mobility of charge carriers. This type of dielectric response is similar to that of the percolated blends consisting of conducting polymer and insulating polymer [32].

A plot of  $M''(\omega)$  with frequency will give a peak at the conductivity relaxation frequency ( $f_0$ ), which defines the relaxation time:

$$\tau_0 = \frac{1}{(2\pi f_0)} \quad (9)$$

If there is a presence of distribution of conductivity relaxation times, then the conductivity relaxation time can be explained on the basis of non-exponential decay function [31–32]:

$$\phi(t) = \exp(-t/\tau_0)^\beta \quad (10)$$

$\beta$  is a relaxation parameter and takes value between  $0 < \beta < 1$ . The relaxation parameter decreases with increase in the width of relaxation time distribution.

The variation of  $M'(\omega)$  and  $M''(\omega)$  as a function of frequency at different fixed temperatures is plotted in Fig. 8 (a), (b), (c) and (d), respectively. Fig. 8 (d) represents the well-defined peaks of  $M''(\omega)$  at particular temperature with characteristic relaxation frequency. It is found that with increase in temperature, the peaks shifted towards higher frequencies. This indicates the thermally activated behaviour of the system [31,32]. From the plot of  $M''/M''_{\max}$  vs  $f/f_0$  (Fig. 9 (a) & (b)), the value of relaxation parameter is calculated. It is observed that the experimental points are in good agreement with the theoretical curve and  $\beta$  is almost temperature independent. The various parameters have been calculated from these modulus plots [31]. The experimentally calculated conductivity relaxation time,  $\langle\tau\rangle_{\text{cal}}$  can be estimated by [31]

$$\langle\tau\rangle_{\text{cal}} = \tau_0 \Gamma(1/\beta) / \beta \quad (11)$$

where  $\tau_0$  and  $\beta$  are conductivity relaxation time and parameter fitted from Fig. 9 (a) & (b). In the present case,  $\beta \sim 0.30$  and we have used this value for the evaluation of various parameters. The values of various parameters are shown in Table 1.

The value of  $\langle\tau\rangle_{\text{cal}}$  can be compared with the experimental value by the following expression

$$\langle\tau\rangle_{\text{exp}} = \epsilon_0 \epsilon_\infty \sigma_{\text{dc}} \quad (12)$$

Where  $\epsilon_0$  represents the permittivity of the free space,  $\epsilon_\infty$  and  $\sigma_{\text{dc}}$  are calculated from the ac and dc measurements, respectively. It is observed from Table 1 that there is a good agreement with modulus approach. Further, the low frequency limiting dielectric constant,  $\epsilon_0$  is given by equation [31]

$$\epsilon_0 = \epsilon_\infty \langle\tau^2\rangle / \langle\tau\rangle^2 \quad (13)$$

$$\epsilon_0 = \epsilon_\infty \Gamma(2/\beta) \beta / (\Gamma(1/\beta))^2 \quad (14)$$

It shows that the  $\epsilon_0$  is also independent of temperature which is not the case in our samples. It rules out the probability that the frequency dependent of  $\epsilon'(\omega)$  is due to the electrode effect. The dielectric constant and loss in such type of system is given [38]:

$$\epsilon'(\omega) = \epsilon_\infty + (\epsilon_0 - \epsilon_\infty) \left[ \frac{1 + (f/f_0)^{1-m} \sin(m\pi/2)}{1 + 2(f/f_0)^{1-m} \sin(m\pi/2) + (f/f_0)^{2(1-m)}} \right] \quad (15)$$

$$\epsilon''(\omega) = \frac{(\epsilon_0 - \epsilon_\infty) \left[ (f/f_0)^{1-m} \cos(m\pi/2) \right]}{1 + 2(f/f_0)^{1-m} \sin(m\pi/2) + (f/f_0)^{2(1-m)}} + \sigma_{\text{dc}} / \omega \epsilon_0 \quad (16)$$

It is also observed that in such system, the dielectric constant and loss are due to the charge carriers trapped at impurity defects and hopping conduction which give rise to dielectric relaxation [39]. At a particular temperature, for a given frequency at which  $\epsilon'(\omega)$  becomes equals to  $(\epsilon_0 - \epsilon_\infty)/2 + \epsilon_\infty$  is termed as the relaxation frequencies.

Thus, the temperature dependence of relaxation frequency is given by the Arrhenius law,

$$f_0 = f_{\text{max}} e^{-E_D/K_B T} \quad (17)$$

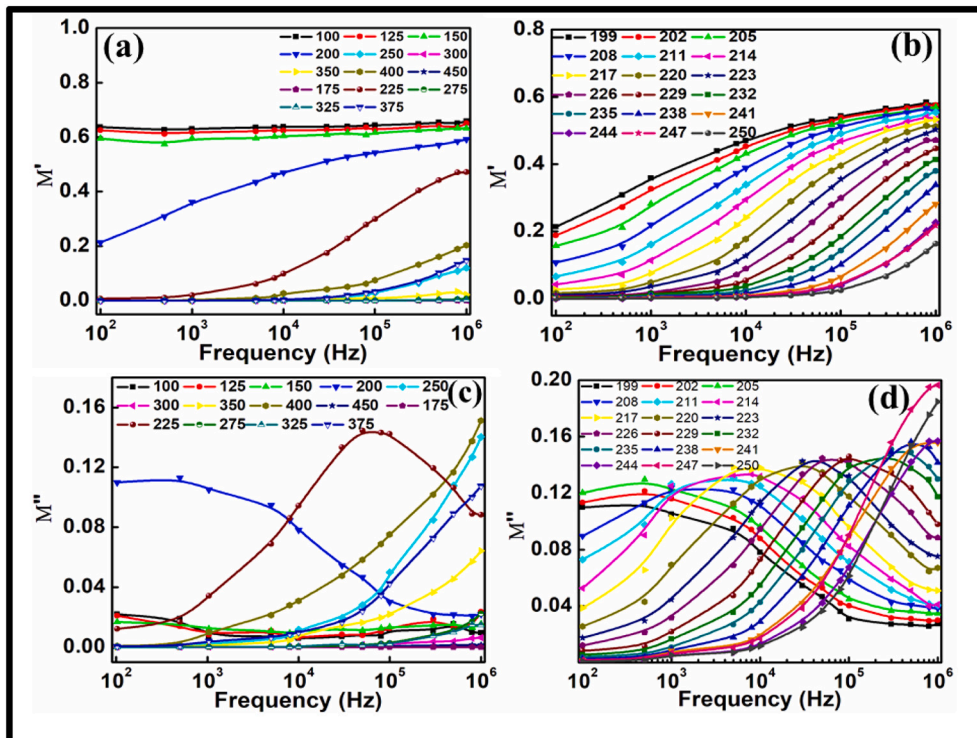


Fig. 8. Variation of (a) & (b)  $M'(\omega)$  and (c) & (d)  $M''(\omega)$  as a function of frequency at different fixed temperatures.

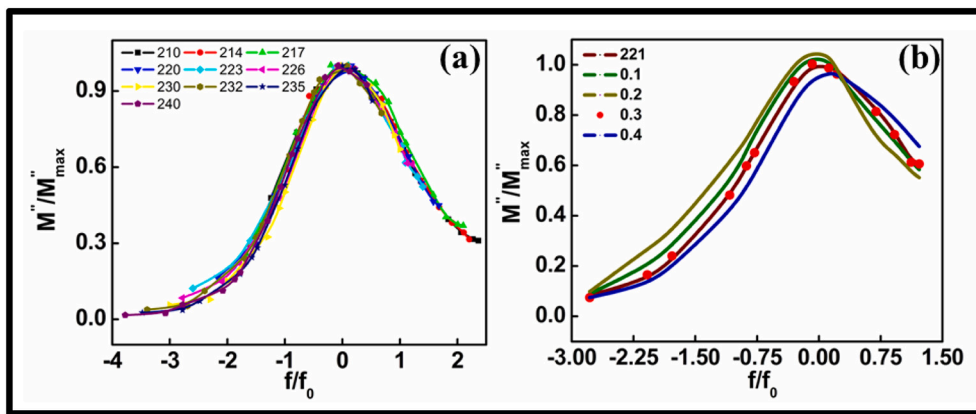


Fig. 9. Plots of  $M''/M''_{max}$  against  $f/f_0$  at (a) different fixed temperature and (b) 225 K.

**Table 1**  
Various parameters evaluated from dielectric modulus plot.

Temp. (K)	$f_0$ (Hz)	$\tau_0$ (s)	$\langle\tau\rangle_{cal}$ (s)	$\langle\tau\rangle_{exp}$ (s)
210	10,000	$1.59 \times 10^{-5}$	$1.42 \times 10^{-4}$	$2.09 \times 10^{-4}$
220	30,000	$5.30 \times 10^{-6}$	$4.73 \times 10^{-5}$	$4.96 \times 10^{-5}$
230	100,000	$1.59 \times 10^{-6}$	$1.42 \times 10^{-5}$	$2.13 \times 10^{-5}$
240	300,000	$5.30 \times 10^{-7}$	$4.74 \times 10^{-6}$	$5.15 \times 10^{-6}$

Where,  $f_{max}$  and  $E_D$  are constant, having dimension of frequency and dipolar activation energy [39]. The parameter  $m$  can take value between 0 to 1. In the Fig. 10 (a), (b) & (c), the  $\epsilon'(\omega)$  vs frequency curve is fitted at 200 K, 225 K and 250 K for various values of  $m$  such as 0.1, 0.2, 0.3, 0.4 and 0.45. The best fitted curve is observed for  $m = 0.40$ , which further confirms the existence of distribution of relaxation times.

Although due to high dielectric loss, the material may not be promising for high dielectric constant applications when used independently, but can be a promising candidate where it can be filled in the two dimensional materials with low dielectric loss such as metal oxide sheets like titanium dioxide. Collectively, the polar behaviour of titanium dioxide and defects as well as oxygen vacancies on the surface of GO can contribute to increase in the net dipole moment suitable for capacitors.

#### 4. Conclusion

The Raman spectroscopy study shows the presence of conducting  $sp^2$  graphitic domain in the insulating  $sp^3$  matrix. The FT-IR investigation also confirms the presence of C–H and C=C bonds of  $sp^3$  and  $sp^2$  hybridization, respectively. The presence of conducting  $sp^2$  domain in insulating  $sp^3$  matrix provides conductive pathways and can be

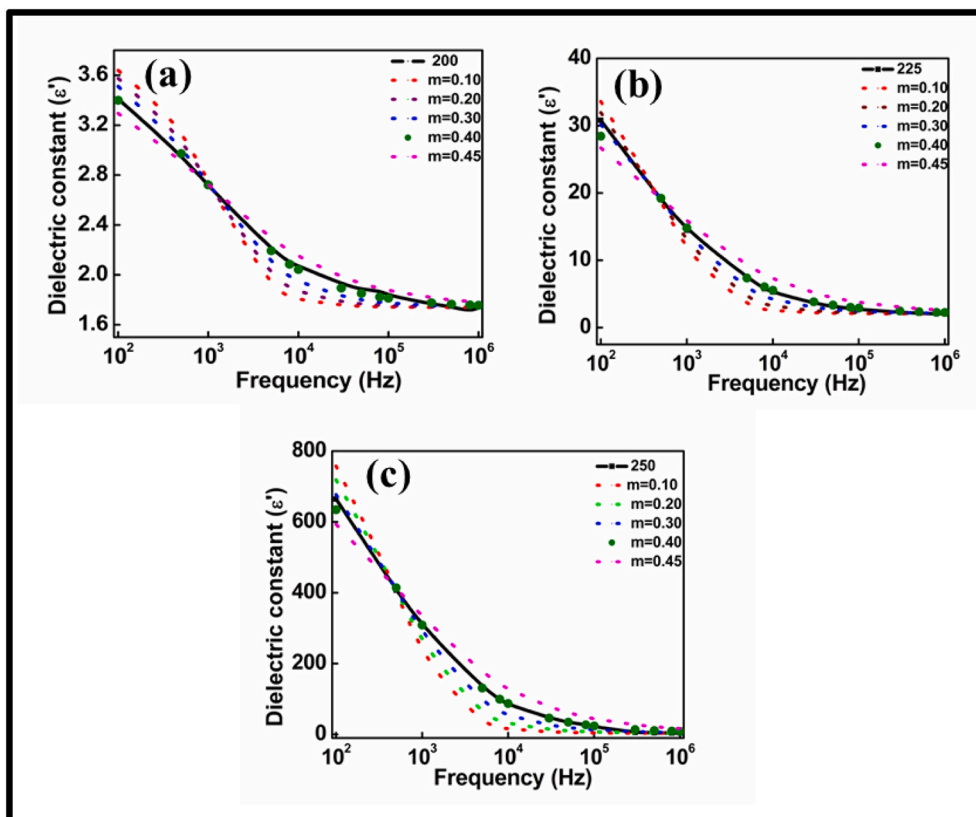


Fig. 10. The variation of  $\epsilon'(\omega)$  measured as a function of frequency at (a) 200 K, (b) 225 K and (c) 250 K, respectively.

visualized as a parallel resistor capacitor model. The dielectric constant increases with temperature due to highly conductive nature of GO. The dielectric permittivity decreases with frequency due to orientation of charges and rotation of dipoles. Above 300 K, the dielectric constant decreases due to decrease in capacitive contribution. The presence of broad loss peaks suggests the distribution of relaxation times. The loss peaks are observed in the region when ac conductivity approaches dc conductivity. The ac conductivity of the sample can be considered due to the interfacial polarization effect which has been investigated with the help of dielectric modulus approach.

### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper. Her current research interests include electrochromic materials, organic photovoltaics, OLEDs, gas sensors and biosensors.

### Acknowledgements

Authors are thankful to the Vice Chancellor, University of Delhi, Delhi, India for providing financial assistance for this work. Thanks are extended to Director, University Science and Instrumentation Centre (USIC), University of Delhi, for characterization facilities. R. Kumar is grateful to the Vice chancellor, V. K. S. University, Ara, Bihar for allowing him to publish this work.

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2020



Contents lists available at ScienceDirect

## Diamond &amp; Related Materials

journal homepage: [www.elsevier.com/locate/diamond](http://www.elsevier.com/locate/diamond)

# Chemiresistive gas sensors based on thermally reduced graphene oxide for sensing sulphur dioxide at room temperature

Ramesh Kumar<sup>a</sup>, Amarjeet Kaur<sup>b,\*</sup><sup>a</sup> Department of Physics, Anjabit Singh College, Bikanranj, V.K.S.U., Ara, Bihar 802212, India<sup>b</sup> Department of Physics and Astrophysics, University of Delhi, Delhi 110007, India

## ARTICLE INFO

## Keywords:

Reduced graphene oxide  
Gas sensors  
Sensing mechanism

## ABSTRACT

Reduced graphene oxide (rGO) has been successfully prepared by a facile method of thermal reduction of graphene oxide in the presence of inert gas environment. The combined characterizations which include Raman spectroscopy, Fourier transform infrared spectroscopy (FT-IR) and scanning electron microscopy (SEM) indicate the successful formation of thermally reduced rGO. The gas sensing application of the prepared samples is demonstrated by the changes in the chemiresistive properties. The rGO based sensor is operated at the room temperature for the detection of SO<sub>2</sub> at low part per million (ppm) levels. It is found that rGO based chemiresistive sensors exhibit sensing response of 3.21% at the concentration level of SO<sub>2</sub> as low as 5 ppm at room temperature. The sensing response increases with increase in ppm level of the analytes and it exhibits rapid response, good selectivity and reproducibility at room temperature. Furthermore, the increase in sensing response is attributed to increase in number of defects in the sensing layer as well increase in its macroporous structure.

## 1. Introduction

Gas sensors play a vital role in numerous application fields of industrial manufacturing [1], medical diagnosis [2], national defence [3] and environmental protection [4]. The past several decades have witnessed a tremendous development of gas sensors based on chemical sensing in many fields [4–6]. Detection of toxic gases and harmful chemical vapors within permissible time limit is quite important. The working of any sensor relies upon three characteristics features, sensitivity, selectivity and stability. The literature reports huge number of sensing materials viz. inorganic metal oxides, organic conducting polymers and their composites [7–18]. The gas sensing devices based on metal oxide sensors [7–12] have been thoroughly investigated due to their good sensing capability, and fast response and recovery. However, these sensors have operational limitation due to their feasibility of working at temperatures much above the room temperature. The operation or optimal response at higher temperature requires complex circuitry and high power consumption [14]. In the quest for the gas sensors operational at room temperature, the alternate materials like conducting polymers [13–15] are gaining lot of importance from the researchers. The sensing devices based on conducting polymers are cost effective and can be easily synthesized but they are prone to environmental degradation [16]. In the light of degradation issues, the focus of

the researchers are now shifting towards graphene related materials for gas sensing applications [4–6,19,20]. Among them, reduced graphene oxide (rGO) based gas sensors are highly preferable due to their room temperature operation, easier synthesis techniques, low cost production on large scale and better stability [4–6,21–23]. Large numbers of articles have been recently published on rGO based gas sensors which can detect various gas species, including NO<sub>2</sub>, NH<sub>3</sub>, CO, and H<sub>2</sub>S [24–28], effectively. The number of such publications has been rapidly increasing over the period of time [6,21–23]. The rapid increase in the research on rGO for gas sensing applications indicates its strong potential for monitoring and sensing. Robinson et al. [29] have used hydrazine hydrate reduced rGO for the detection of acetone and various toxics at the concentration as low as few ppb. Hassinen et al. [30] developed rGO based gas sensor for NO<sub>2</sub> detection. The sensor showed good response to 10 ppm of NO<sub>2</sub>. In another report [31], a chemical sensor based on hydrazine reduced rGO based films for the detection of various analytes such as NO<sub>2</sub>, NH<sub>3</sub> and Di-nitro toluene (DNT) etc., is reported. The sample showed 360% increase in response to 100 ppm NO<sub>2</sub> at room temperature. The rGO based sensors are also used for the definitive identification of chemically similar analytes such as ethanol, methanol and isopropanol [32]. In a report, pyrrole reduced rGO based highly sensitive and selective sensor is reported for the NH<sub>3</sub> detection at room temperature [33]. In another report, the rGO was synthesized by

\* Corresponding author.

E-mail address: [amarkaur@physics.du.ac.in](mailto:amarkaur@physics.du.ac.in) (A. Kaur).<https://doi.org/10.1016/j.diamond.2020.108039>

Received 25 May 2020; Received in revised form 3 August 2020; Accepted 8 August 2020

Available online 17 August 2020

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# दृष्टिकोण

## संपादक मंडल

डॉ. अरुण अग्रवाल रेल्वे विश्वविद्यालय, फीटवले, ओडिशा	डॉ. पुष्प सिंह बी.आर.ए. बिहार विश्वविद्यालय, मुजफ्फरपुर
डॉ. वषा शंकर तिवारी दिल्ली विश्वविद्यालय	डॉ. एम. के. सिंह भरत विश्वविद्यालय, फर्रुखा
डॉ. अनन्त प्रकाश तिवारी मराठी विश्वविद्यालय, काठमांडू	डॉ. अशोक कुमार सिंह बे.पी. विश्वविद्यालय, जयपुर
डॉ. प्रकाश सिन्हा इलाहाबाद विश्वविद्यालय, इलाहाबाद	डॉ. भिषमदेव बी.ए.एम. विश्वविद्यालय, जयपुर
डॉ. दीपक श्यामी बी.ए.एम. विश्वविद्यालय, गोरखपुर	डॉ. अमर चन्द्र सिंह जिला शिक्षा अधिकारी, गोरखपुर विश्वविद्यालय, गोरखपुर
डॉ. अरुण कुमार राजीव विश्वविद्यालय, राजीव	डॉ. शशीश शर्मा दिल्ली विश्वविद्यालय, दिल्ली
डॉ. यशोवन्त कुमार सिंह मिडू कानू विश्वविद्यालय, दुर्गा	डॉ. स्वदेश सिंह दिल्ली विश्वविद्यालय, दिल्ली
डॉ. इरिस्वन्द अग्रवाल अनन्त प्रकाश सिंह विश्वविद्यालय, राय	डॉ. विभव प्रताप सिंह अरवि साहू मराठी विश्वविद्यालय, कलकत्ता

### संपादकीय सम्पर्क:

448, पॉकेट-5, मयूर विहार, फेज-1, दिल्ली-110091  
 फोन : 011-22753916, 35522994 Mobile: 9710050610, 9810050610  
 e-mail : editorialindia@yahoo.com; editorialindia@gmail.com; dellijournals@gmail.com  
 Website : www.ugc-care-drishtikon.com  
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ISSN 0975-119X

नोट: पत्रिका में प्रकाशित लेखकों को विकार अपने हैं। उसमें लिए पत्रिका/संपादक/संपादक मंडल को उत्तरदायी नहीं ठहराया जा सकता। पत्रिका से सम्बंधित किसी भी विकार को लिपियों को लिए ज्ञापन क्षेत्र दिल्ली होगा।

## चेरो शासक मेदिनी राय ( 1658-1674 ई. )

मो० परवेज अहमद

शोधार्थी, इतिहास विभाग, पटना विश्वविद्यालय, पटना

डॉ० रंजन मिह्रा

शोध-निदेशक, सेवानिवृत्त एसोसिएट प्राध्यापक, इतिहास विभाग, पटना विश्वविद्यालय, पटना

### सारांश

मध्यकाल में झारखण्ड में तीन प्रमुख शासक-वंश थे-छोटानागपुर-खास के नागवंशी, पलामू के चेरो तथा सिंहभूम के सिंह शासक। इनमें दूसरे अर्थात् चेरो वंश की स्थापना 1538 ई. तक पलामू में हो चुकी थी। उसी वर्ष महारथ चेरो तथा शेर खॉ के बीच युद्ध हुआ था। महारथ चेरो के बाद भागवत राय पलामू की गद्दी पर बैठा। भागवत राय अकबर का समकालीन था। जहाँगीर के समय पलामू पर दो चेरो राजाओं ने राज किया। ये दो चेरो राजा थे-अनन्त राय एवं सहबल राय। प्रताप राय शाहजहाँ का समकालीन था। ऐसा प्रतीत होता है कि पुराना पलामू किला प्रताप राय के शासनकाल में ही बना। औरंगजेब के शासन के प्रारम्भिक वर्षों में पलामू का चेरो राजा मेदिनी राय था। उसने 1658 से 1674 ई. तक राज किया। वह एक शक्तिशाली राजा था और गद्दी पर बैठते ही उसने मुगलों की अधीनता अस्वीकार कर दी थी। मेदिनी राय ने चेरो को विरासत में मिली रक्सेल प्रशासकीय परम्पराओं के अलावा अफगान एवं मुगल प्रशासकीय तत्वों को समाहित कर एक कुशल शासन-व्यवस्था की स्थापना की थी। ये प्रजा की भलाई के लिए हमेशा तत्पर रहते थे।

मेदिनी राय की प्रजावत्सलता, दानशीलता और न्यायप्रियता के लिए आज तक पलामू में चर्चाएँ होती हैं। अभी भी वहाँ एक लोकगीत प्रचलित है-

“धनि-धनि राजा मेदनियाँ

घर-घर बाजे मथनियाँ”

आधार शब्द रू पलामू, चेरो, मेदिनी राय, औरंगजेब, जनजाति।

### परिचय

प्राकृतिक दृष्टि से झारखण्ड दो मुख्य भागों में बँटा है- छोटेनागपुर और संथाल परगना। इसकी भौगोलिक स्थिति महत्वपूर्ण है। यह मध्य भारत के विशाल पठार का पूर्वी भाग है। झारखण्ड पहाड़ों, जंगलों और खनिज पदार्थों से भरा पड़ा है। भारतीय इतिहास के विभिन्न युगों में झारखण्ड विभिन्न नामों से जाना जाता रहा है। जंगलों, पहाड़ों से आच्छादित होते हुए भी यह प्रदेश बाह्य जगत से पूर्णतः कटा हुआ नहीं था। प्राचीन काल से ही भारत के अन्य भागों से इसका जातीय एवं सांस्कृतिक आदान-प्रदान होता रहा। फिर भी, दुर्गम भौगोलिक प्रभाव के कारण यह क्षेत्र भारत के अन्य भागों से ऐतिहासिक एवं सांस्कृतिक दृष्टिकोण से बहुत कुछ भिन्न रहा है। यहाँ एक विशिष्ट सभ्यता का विकास हुआ, जिसने बाह्य प्रभावों के बावजूद अपनी विलक्षणता को अधुण बनाए रखा। प्राचीन भारत में गुप्त शासकों एवं शशांक को छोड़कर किसी राजवंश ने यहाँ लम्बे समय तक शासन नहीं किया। तुर्क विजेता अपने तीन सौ साल के शासनकाल में कभी भी इस क्षेत्र को आक्रांत नहीं कर सके। मुगल सम्राटों का भी सीमित संपर्क रहा। इन विशेष परिस्थितियों के कारण ही झारखंड के इतिहास का तथा सांस्कृति प्रगति का एक विशेष दिशा में झुकाव रहा। द्रविड़ तथा आर्यों द्वारा अधिक उपजाऊ प्रदेशों से निकाले जाने पर भारतीय आदिम समुदायों ने यहाँ शरण लिया, जैसे-मुण्डा, हो, उराँव, संथाल, चेरो तथा खरवार आदि। इस तरह यह प्रदेश प्राचीन भारतीय आदिम जनजातियों का निवास-स्थान बनता चला गया। ऐतिहासिक युग में यहाँ पर कांकजोल शासकों, नागवंशियों, सिंहीं, रक्सेलो तथा चेरों के प्रायः छोटे-छोटे स्वतंत्र राज्य ही रहे हैं। इसकी प्राकृतिक बनावट ने स्थानीय स्वतंत्रता के पनपने में सहायता पहुँचाई। पहाड़ी भूमि तथा वनों के कारण यहाँ के निवासी अत्यधिक मितव्ययी, सहनशील, परिश्रमी तथा युद्ध प्रिय रहे हैं।

भारतीय इतिहास की समृद्धि के लिए जनजाति पर अध्ययन बहुत महत्वपूर्ण है। जयपाल सिंह द्वारा भारतीय सविधान सभा में 'जनजाति' के संबंध में आरक्षण आदि पर मांग की गयी। उनके अनुसार स्वतंत्रता के अपमानित योद्धाओं भारत के आदिवासियों जो कि भिन्न-भिन्न प्रकार की पिछड़ी हुई जाति, असभ्य जाति, जरायन पेशा कौम और जो कुछ भी हो, नामों से परिचित की गई है। उनके अनुसार आदिवासी समाज का समस्त इतिहास भारत से बाहर से आये हुए व्यक्तियों द्वारा स्वत्व-हरण और शोषण का इतिहास है, जो विद्रोह और अव्यावस्था से अंकित है। जयपाल सिंह ने डॉ. राजेन्द्र प्रसाद के वक्तव्य को सविधान सभा में रखा।

# दृष्टिकोण

कला, मानविकी एवं वाणिज्य की मानक शोध पत्रिका

प्रधान संपादक

डॉ. अश्विनी महाजन

दिल्ली विश्वविद्यालय, दिल्ली

संपादक

डॉ. प्रसून दत्त सिंह

महात्मा गांधी केन्द्रीय विश्वविद्यालय, मोतिलाली

डॉ. फूल चन्द

दिल्ली विश्वविद्यालय, दिल्ली

**दृष्टिकोण प्रकाशन**

“बिहार का यह भाग जहाँ यह विशाल जनसमुह एकत्रित हो रहा है, अपनी स्वयं विशेषता रखता है। सौंदर्य में यह अनुपम है। इसका इतिहास भी अनोखा है। इन भागों में अधिकतर वे लोग बसते हैं, जो कि भारतवर्ष के मूल निवासी माने जाते हैं। अन्य व्यक्तियों की सभ्यता से इसकी सभ्यता कई बातों से भिन्न है। प्रायः प्राचीन वस्तुओं से यह सिद्ध होता है कि यह सभ्यता बहुत पुरानी है। आदिवासी, आर्यों से भिन्न वंश के हैं और इनके वंश के मनुष्य भारत के दक्षिण-पूर्व के कई टापुओं में सुदूर तक फैले हुए हैं—इनकी प्राचीन सभ्यता इन भागों में पर्याप्त सीमा तक सुरक्षित रही है, संभवतः अन्य स्थानों से अधिक।”

चेरो जनजाति के संबंध में विभिन्न अवधारणाएँ हैं। रिसले के अनुसार “चेरो या चेस बिहार एवं छोटानागपुर के निवासी है, जिनका मुख्य पेशा कृषि एवं भूमि से संबंधित (जमींदारी) कार्य प्रणाली रहा है। बिहार एवं छोटानागपुर के अतिरिक्त पूर्वी उत्तर प्रदेश के क्षेत्र बनारस एवं मिर्जापुर में भी निवास करते हैं। सर हेनरी इलियट के कथनानुसार चेरो भार जनजाति की शाखा है, जो कोल जनजाति से संबंधित है। वे लोग राजपूत जाति से संबंधित करते रहे हैं। इनका पहनावा भी उनमें मिलता जुलता है। इन लोगों की भाषा कोल भाषा से निकट रहा है। जो मुंडा से भी संबंधित है। मुंडा जनजाति तथा मुंडा भाषा का प्रभाव सभी जनजाति भाषाओं में दृश्य होता है।”

चेरो आदिवासी द्रविड़ प्रजाति के हैं। ये हिन्दी, भोजपुरी से मिलती-जुलती ‘कुरुख’ बोली बोलते हैं। चेरो तीन प्रकार के हैं, 1. ‘बबुआन’ ये अपने को राजपूत कहते हैं, 2. ‘बारह हजारी’, इन्हें बबुआन अपने से छोटा समझते हैं और वैवाहिक सम्बन्ध नहीं रखते हैं, 3. ‘तेरह हजारी’, इन्हें ‘बीर बौधिया’ भी कहा जाता है। ‘बारह हजारी’ इन्हें अपने से छोटा समझते हैं। चेरो समाज पितृसत्तात्मक होता है।”

बुकानन का सुझाव है कि चेरो, क्षत्रिय कुल से संबंधित रहे हैं। वे सुनका परिवार के सदस्य माने जा सकते हैं, जो छठी या सातवीं शताब्दी ई. पू. गौतम के समय फले-फूले। बौद्ध पिलालेख में ‘फुदी चन्द्र’ का उल्लेख है, जिसे पारंपरिक रूप से चेरो कहा जाता है।”

मुगल काल के आरंभ में झारखंड में एक महत्वपूर्ण परिवर्तन यह हुआ कि रक्सैलो को पराजित कर चेरों ने पलामू में एक नये राजवंश की स्थापना कर ली थी। परम्परागत विचार यह है कि राजा भागवत राय ने पलामू के चेरो राजवंश की स्थापना जहाँगीर के शासनकाल में की थी किन्तु आधुनिक शोधकर्तव्यों ने प्रमाणित किया है कि शेर खाँ के गद्दी पर बैठने के पूर्व ही चेरो रोहतास से चलकर पलामू में प्रवेश कर चुके थे। चौसा की लड़ाई के ठीक पहले शेर खाँ ने अपने सेनापति खवास खाँ को झारखण्ड के एक राजा महाराथ चेरो के खिलाफ भेजा था। रोहतासगढ़ पर शेर खाँ का अधिकार 1538 ई. में हुआ था। महाराथ चेरो के विरुद्ध शेरशाह की सफलता का चेरों पर कोई स्थायी प्रभाव नहीं पड़ा था।

महाराथ चेरो के बाद पलामू का शासक भागवत राय बना। भागवत राय मुगल शासक अकबर का समकालीन था। मुगल मनसबदार राजा मानसिंह ने भागवत चेरो को पराजित कर पलामू पर मुगल संप्रभुता स्थापित की। भागवत राय का उत्तराधिकारी अनन्त राय हुआ। अनन्त राय के समय मुगल शासक जहाँगीर था।

चेरो परम्परा के अनुसार प्रताप राय ने 1630 से 1631 तक अर्थात् 31 वर्षों तक शासन किया था।<sup>10</sup> चेरो परम्परा के अनुसार जहाँगीर के शासनकाल में एक अन्य चेरों राजा सहबल राय हुआ। किन्तु मुस्लिम इतिहास ग्रंथों में उसका कोई उल्लेख नहीं मिलता है। संभावना यह है कि लगभग 1612 ई. में अनन्त राय की मृत्यु हो गयी और उसके बाद सहबल राय राजा बना। सहबल राय की मृत्यु के बाद प्रताप राय पलामू की गद्दी पर बैठा। चरतुतः इसी के समय से पलामू का इतिहास क्रमबद्ध एवं प्रामाणिक जान पड़ता है। यद्यपि प्रताप राय के शासनकाल में पलामू पर मुगलों के कई आक्रमण हुए। वह एक शक्तिशाली राजा सिद्ध हुआ। ऐसा लगता है कि पुराना पलामू किला उसी के शासन काल में निर्मित हुआ।<sup>11</sup> उस समय पलामू का चेरों राजा अत्यंत समृद्ध था। चेरों राज्य में विशाल बाजार तथा घनी आबादी वाले गाँव थे। यह राज्य काफी विस्तृत था और उसकी उत्तरी सीमा पटना से केवल 71 मील दूर थी। दक्षिण-पश्चिम की ओर यह राज्य कनहर नदी तक फैला था। दक्षिण में यह राज्य टोरी (आधुनिक चँदवा) तक फैला था। कोठी कुंडा और देवगन के सीमांतक किले इसे मुगलों के विहार सूबा से पृथक करते थे।<sup>12</sup>

मैदिनी राय एक योग्य, शक्तिशाली एवं लोकप्रिय चेरो शासक था। औरंगजेब के शासन के प्रारम्भिक वर्षों में पलामू का चेरों राजा मैदिनी राय ही था। उसने 1658 से 1674 ई. तक शासन किया।<sup>13</sup> गद्दी पर बैठते ही उसने मुगलों की अधीनता अस्वीकार कर दी और अपनी परम्परागत मुगल विरोध नीति पर लौट आये। मैदिनी राय ने न केवल कर देना बन्द कर दिया बल्कि सीमावर्ती मुगल प्रदेशों को आक्रांत करना भी आरंभ कर दिया। आलमगीरनामा के अनुसार ‘पलामू के विधर्मी जमींदार’ पलामू की दुर्गमता में विश्वास कर न केवल सालाना पेशकश देना बन्द कर बैठे, बल्कि पलामू के सीमावर्ती शाही इलाकों पर भी कब्जा करने लगे।<sup>14</sup> सीमावर्ती मुगल प्रदेशों के अतिरिक्त मैदिनी राय अपने पड़ोसी राजाओं से भी लड़ता-पिड़ता रहा। उसके सैनिक अभियानों की विस्तृत जानकारी उपलब्ध नहीं है, किन्तु इतना निश्चित है कि उसने कोकरा के नागवंशी राजा की राजधानी दोइसा नगर पर आक्रमण किया। लूट के सामान में वह प्रसिद्ध पत्थर का फाटक भी था जो अब नागपुर द्वार नाम से पलामू के नया किला की शोभा बढ़ा रहा है।<sup>15</sup>

मैदिनी राय ने पलामू के नये किले का निर्माण पुराने किले के निकट की एक पहाड़ी पर करवाया था और इसी में नागपुर फाटक को लगाया गया। किले की अनेक्य स्थिति औरंगजेब जैसे साम्राज्यवादी शासक के लिए असह्य थी। उसने विहार के सुबेदार दाऊद खाँ को पलामू पर आक्रमण करने तथा चेरो राजा से कर वसूलने का आदेश दिया।<sup>16</sup> बिहार के विभिन्न जमींदारों और फौजदारों के साथ दाऊद खाँ 23 अप्रैल, 1660 ई. को पटना से पलामू की ओर रवाना हुआ। कोकरा का नागवंशी राजा भी इस अभियान में मुगलों की ओर से शामिल हुआ, क्योंकि वह मैदिनी राय द्वारा दोइसा नगर पर हुए हमले का बदला लेना चाहता था।<sup>17</sup> दाऊद खाँ जानता था कि उसके पूर्ववर्ती सुबेदार चेरों को पराजित करने में सफल हुए थे, किन्तु उनका पूर्ण विनाश नहीं कर सके थे। अतः वह पलामू का पूर्ण दमन करना चाहता था। वह निर्विरोध पलामू में प्रविष्ट हुआ और 5 मई, 1660 ई. के दिन उसने कोठी के किले पर अधिकार कर लिया। इसके बाद वह कुंडा के किले की ओर बढ़ा। 3 जून, 1660 ई. को यह किला मुगलों द्वारा नष्ट कर दिया गया।<sup>18</sup>



**RESEARCH REVIEW**  
International Journal of  
Multidisciplinary  
[Peer Reviewed Journal]



**e-ISSN:** 2455-3085  
**Impact Factor:** 5.164 [SJIF]

**Journal is Indexed in**  
Google Scholar, IJIF, SJIFactor,  
RESEARCH BIBLE, DRJI, GIF, UGC,  
Zenodo



Issued w.e.f. Nov-2018 Issue

## CERTIFICATE OF PUBLICATION

This is to certify that Research Paper/ Article/ Case  
Paper entitled

बिहार में सामाजिक न्याय के साथ आर्थिक न्याय का  
उभार

Authored By

डॉ. चिंटू

*Self Affected  
Ch  
21/11/2020*

has been published in Volume-5 | Issue-11 | Nov-2020  
in this International Peer Reviewed ISSN Indexed  
Online Research Journal.



Ref. No. RRJ2020051116

Issued Date: 14-Nov-2020

✉ editor.rjournals@gmail.com

🌐 www.rjournals.com

📄 <https://doi.org/10.31305/rjim.2020.v05.i11.016>



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Chief Editor

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# बिहार में सामाजिक न्याय के साथ आर्थिक न्याय का उभार

डॉ. चिंटू

सहायक अध्यापक, अन्जबित सिंह कॉलेज, बिक्रमगंज (रोहतास), वीर कुंवर सिंह विश्वविद्यालय, आरा (बिहार)

## ARTICLE DETAILS

### Article History

Published Online: 14 November 2020

### Keywords

सामाजिक न्याय, पिछड़े वर्ग, बिहार, वामपंथी पार्टियां, राजद, सीपीआई, माकपा, भाकपा-माले

### \*Corresponding Author

Email: [chintumkumaril\[at\]gmail.com](mailto:chintumkumaril[at]gmail.com)

## ABSTRACT

बिहार एक ऐसा राज्य है जहाँ राजनीतिक शक्ति लम्बे समय तक उच्च जाति एवं वर्ग के पास रही. लेकिन मध्यम वर्ग भी राजनीतिक- आर्थिक हिस्सेदारी के लिए लम्बे समय से अपनी पैठ बनाने की कोशिश में लगा रहा. यहाँ की पारंपरिक सत्ता को तथा राजनीतिक और आर्थिक वर्चस्व को चुनौती 1970 के दशक में मिलने शुरू हुई. और 1990 के दशक में पिछड़े वर्ग की राजनीति का उभार अपने चर्म पर था जब लालू यादव ने बिहार के मुख्य मंत्री के रूप में सत्ता संभाला. सत्ता का लोकतंत्रीकरण एक झटके में नहीं हुआ बल्कि इसके लिए एक लम्बा समय लगा जिसकी जड़े स्वतंत्र से पहले से देखी जा सकती हैं

## 1. परिचय

लोकतंत्र की खूबसूरती इसी में है कि जब भी सत्तापक्ष खुद को संप्रभु समझने लगती है तब जनता उनकी धनबल और बहुबल के अहंकार को तोड़ने का दम खम रखती है. वामदलों को छोड़ दें तो बिहार की जनता ने हर रंग और विचार की पार्टियों को सत्ता संभालने का मौका दिया. वर्तमान में 2020 के विधानसभा चुनाव में भी जनता ने शिक्षा, रोजगार, और स्वास्थ्य जैसे मुद्दों को केंद्रीय महत्व के विषय के रूप में पहचान दी. सभी दलों और विचारों की पार्टियों को उदार हृदय होने की सलाह दी और इस प्रकार बिहार की जनता ने फिर से सत्ता के केन्द्रीकरण के खिलाफ अपना अपना जनादेश दिया. सामाजिक न्याय के साथ आर्थिक विकास का तालमेल एक मज़बूत विपक्ष के रूप में लोकतंत्र के खम्बे को मजबूती देगा.

## 2. ऐतिहासिक परिप्रेक्ष्य

बिहार एक ऐसा राज्य है जहाँ राजनीतिक शक्ति लम्बे समय तक उच्च जाति एवं वर्ग के पास रही. लेकिन मध्यम वर्ग भी राजनीतिक- आर्थिक हिस्सेदारी के लिए लम्बे समय से अपनी पैठ बनाने की कोशिश में लगा रहा. यहाँ की पारंपरिक सत्ता को तथा राजनीतिक और आर्थिक वर्चस्व को चुनौती 1970 के दशक में मिलने शुरू हुई. और 1990 के दशक में पिछड़े वर्ग की राजनीति का उभार अपने चर्म पर था जब लालू यादव ने बिहार के मुख्य मंत्री के रूप में सत्ता संभाला. सत्ता का लोकतंत्रीकरण एक झटके में नहीं हुआ बल्कि इसके लिए एक लम्बा समय लगा जिसकी जड़े स्वतंत्र से पहले से देखी जा सकती हैं. कृषि योग्य भूमि पर मुख्य रूप से बिहार में तीन जातियों के पास एकाधिकार था – राजपूत, भूमिहार और ब्राह्मण. पिछड़े वर्ग के पास जैसे कोइरी, कुर्मी और यादव के पास ज़मीन का एक छोटा सा हिस्सा था. जबकि निम्न वर्ग के पास कुछ अपवाद को छोड़ दिया जाये तो अधिकांश लोग भूमिहीन खेतिहर मजदूर बने रहे. हालांकि स्वतंत्र से पहले स्वाधीनता आन्दोलन के समय से कुछ लोग भूमि सुधार की मांग को लेकर लड़

रहे थे. जैसे की स्वामी सहजानंद किसान सभा के बैनर तले किसान आन्दोलन को नेतृत्वा दे रहे थे. कहा जाता है की ये इस अन्दोलन का सबसे ज्यादा फ़ायदा पिछड़ी जातियों को मिला और उच्च वर्ग को इसका घटा झेलना पड़ा. भूमि सुधार का अधिकतम फ़ायदा पिछड़ी वर्ग की जातियों को मिला जो एक नए कृषक वर्ग के रूप में उभर कर आया जिसे कुलक कहा जाने लगा. आर्थिक उभार के साथ साथ इस वर्ग में राजनैतिक उभार की भी आकांक्षा जागी और इस वर्ग ने राजनैतिक तौर पर भी अपनी जगह बनानी शुरू की. 1980 के दशक के आन्दोलन से दबे कुचले पिछड़े समाज को सशक्तिकरण का भान हुआ हालांकि सामाजिक, आर्थिक और राजनैतिक क्षेत्र में कुछ खास सफलता हासिल करने में अक्षम रही. क्योंकि शीघ्र ही पिछड़ा वर्ग खुद में टूटने और बिखरने लगा. पहले खेमे का नेतृत्व लालू यादव के जनता दल और दूसरा खेमा जिसमे कुर्मी और कोइरी शामिल थे समता पार्टी के रूप में संगठित हुए.

## 3. वामपंथी पार्टियों की भूमिका

मुख्यधारा की वामपंथी पार्टियां जैसे कम्युनिस्ट पार्टी ऑफ़ इंडिया और कम्युनिस्ट पार्टी ऑफ़ इंडिया मार्क्सिस्ट ने जनता दल के प्रमुख गठबंधन साथी की भूमिका निभाई. CPIML मात्र एक बार समता पार्टी का गठबंधन साथी रहा. हालांकि जनता दल ने अपना वर्चस्व बनाये रखा लेकिन फिर भी एक लम्बे समय तक CPI और CPM इसके प्रमुख साथी रहे.<sup>1</sup>

लालू प्रसाद के चारा घोटाले के बावजूद जनता दल बिहार में सत्ता में बनी रही. क्योंकि इन्होंने सामाजिक न्याय के मुद्दे को जिन्दा रखा और गरीब पिछड़ों के हक़ की लड़ाई में डेट रहे. चाहे और जो

<sup>1</sup>संजय कुमार, न्यू फेज इन बैंकवर्ड क्लास पॉलिटिक्स इन बिहार: जनता दल ऑन डिक्लाइन, इकनोमिक एंड पोलिटिकल वीकली, पेज. 2472-2473.

## OUR PUBLICATIONS



 Locus Press

448, Pocket-V, Mayur Vihar, Phase-I, Delhi-110091 (INDIA)  
Ph.: 011-22753916

ISSN 0975-119X

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WZ-724, पालम गांव, नई दिल्ली-110045

फोन : 011-22753916

E-mail : editorialindia@gmail.com; delhijournals@gmail.com

Dated: 28/08/2020

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डॉ० आशुतोष कुमार

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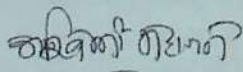
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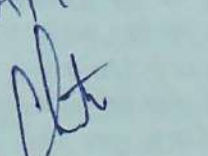
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Thankfully, wishing you all the best.

Yours truly,



**Ashwani Mahajan**  
Managing Editor

*Self Affected*  




Self-Attested  
Chit  
24/4/2020

दृष्टिकोण

## जाति, संस्कृति और जेंडर के बीच परस्पर सम्बन्ध : ग्रामीण भोजपुर क्षेत्र का अध्ययन

डॉ. चिट्ट

सहायक अध्यापक अन्जबित सिंह कॉलेज, विक्रमगंज (रोहतास),  
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डॉ. आशुतोष कुमार

अतिथि अध्यापक, राजधानी कॉलेज, (दिल्ली विश्वविद्यालय),  
पीएचडी, ज.ने.वि., (नई दिल्ली)

हाल के वर्षों में अपने शोध अध्ययन के दौरान बिहार के भोजपुर इलाके में महीनों सैकड़ों गाँव में घूमने और वहाँ के राजनैतिक, आर्थिक, सांस्कृतिक खासकर जाति, वर्ग और जेंडर आधारित भेदभाव के अलग-अलग आयामों को गहराई से समझने का मौका मिला। इससे पहले अपने गाँव और समाज में, जहाँ पैदा हुए और पले - बढ़े, को इतनी गहराई से समझने-परखने का मौका नहीं मिला था। खासकर मेरे अचेतन मन ने भी ग्रामीण महिलाओं की दयनीय हालत को तो स्वाभाविक रूप से आत्मसात कर ही लिया था। दिल्ली में पढाई के लिए प्रवास के दौरान बहुत से दोस्तों को अपने गाँव, खेत-खलिहान, हरियाली, पेड़ पौधे, खानपान, ताजी दही, घी, मलाई त्यौहार आदि का बड़ा ही रूमानी और मनोहर चित्रण करते सुना और देखा है। लेकिन मुझे न जाने क्यों मेरा ग्रामीण जीवन इतना मनोहर नहीं लगा। बल्कि जैसे-जैसे सचेत हुए, नारीवादी चिंतन के प्रति मेरा स्नेह और आभार बढ़ता गया। मेरे मन में नारी विमर्श के कई अनछुए पहलुओं को भी गहराई से समझने का मौका मिला और खासकर ग्रामीण मजदूर महिलाओं पर परत दर परत हो रहे शोषण, जुल्म और अत्याचार के बहु आयामों को कुरेदने और असल जड़ तक पहुँचने का मौका मिला। गाँव का सुन्दर चित्रण मुझे इसलिए भी बंमानी या कहें कि अतिशयोक्ति लगी क्योंकि गाँव में रहने का लम्बा और प्रत्यक्ष अनुभव मुझे प्राप्त है और इससे भी महत्वपूर्ण बात ये है कि मेरा ग्रामीण माहौल और समाज के दूसरे पक्ष से ज्यादा वास्ता रहा या सामना करना पड़ा। ग्रामीण क्षेत्र को देखने के कई नजरिए हो सकते हैं। मसलन, यदि कोई गाँव में किसी बड़े जाति या वर्चस्व वाले जमींदार या सामन्ती खानदान में पैदा हुआ हो तो उसके अनुभव गाँव को लेकर खुशनुमा या मनोरंजक हो सकते हैं। लेकिन एक दूसरा नजरिया भी हो सकता है जो स्थापित नजरिये से भिन्न हो। यहाँ मैं यह स्पष्ट कर दूँ की ग्रामीण भारत का स्थापित नजरिया यह है कि बलात्कार शहरी इंडिया में होते हैं ग्रामीण भारत में नहीं। डॉ. मोहन भगवत, सरसंचालक आर.एस.एस के 8 जनवरी 2013 का कथन, इंडियन एक्सप्रेस।) इस धारणा के विपरीत गाँव के लोगों खासकर दलित-पिछड़ी, गरीब, मजदूर महिलाओं की दिनचर्या ही जेंडर आधारित शोषण से ही शुरू होती है। मसलन, महिलाओं का घर में सबसे पहले सूर्योदय से पहले उठ जाना और सबसे अंत में सोना, जलावन का इन्तजाम करना, सबके लिए घर में जो भी उपलब्ध अनाज है उसे पकाना और मालिक (बड़े बाबू साहेब) के खेत में दिन भर के लिए काम पर निकल जाना इत्यादि। बात यहीं खतम नहीं होती। खेत में अपने पुरुष साथी से दोहरा शोषण और कम मजदूरी इसके ऊपर गाली, चरित्र हनन, बलात्कार और छेड़खानी का अतिरिक्त दमन भी पुरुष मजदूर की तुलना में महिला मजदूर को अधिक झेलना पड़ता है। दिहाड़ी महिला मजदूरों, जो कि पत्थर तोड़ने, मिट्टी - ईंट ढोने, मनरेगा मजदूर हो या फिर भूमिहीन खेतिहर मजदूर

## The Confluence of Bhojpuri and Bengali Folk Culture

<sup>1</sup>Dr Chintu and <sup>2</sup>Dr Ashutosh Kumar

<sup>1</sup>Assistant Professor, A.S. College, Bikramganj (Rohtas), VKSU (Ara), Bihar (India)

<sup>2</sup>Guest Faculty, Rajdhani College (NCWEB), Delhi University, Delhi (India)

### ARTICLE DETAILS

#### Article History

Published Online: 17 August 2020

#### Keywords

Confluence, Culture, Convergence, Bidesiya, transformation, composite culture, Folk culture.

#### Corresponding Author

Email: [chintukumar\[at\]gmail.com](mailto:chintukumar[at]gmail.com)

### ABSTRACT

*Understanding Culture is essential to any study or discussion about the social and political enquiry. The paper seeks to understand the complexities and coexistence of Bhojpuri and Bengali folk culture. Whether it is songs, theatre or film, both seem to influence and complementary to each other. This paper is an attempt to understand the amalgamation of different cultures and how they have been enriching their cultural folk tradition without harming and destroying each other. The article is also an attempt to analyse how Bhikhari Thakur who is called the Shakespeare of Bhojpuri has played an essential role in the confluence of Bhojpuri and Bengali folk culture and voicing the issues and aspirations of the oppressed in his art form Bidesiya.*

### 1. Introduction

Culture is defined as a set of values, beliefs, symbols, ideas, forms of behaviour and style of art and craft which the members of a group have evolved to streamline their social life, and thereby distinguished themselves from other groups. The term culture, however, does not have a confined, defined and refined meaning. Learning is a dynamic concept which has multiple and multidimensional implications. Raymond Williams pointed out that culture has at least three distinct if not discrete meanings. Culture for him is firstly a process of cultivation and growth it carries through today in its biological usage. It is also a pattern of living and a way of understanding.

Furthermore, finally, culture is a thing, a product, an artistic work. These meanings, of course, often overlap. In this way, one cannot find a definitive definition of culture in William's essay. In this paper, we would seek to understand the composite culture of India through a case study of Bhojpuri and Bengali folk culture. Bhojpuri migrants in West Bengal have learned immensely from Bengali folk culture by mingling up with the different genre, interacting with each other and building mutual understanding and respect between different cultural groups without damaging or destroying each other's identity. For example, *Bidesiya* is a legendary folk performance from Bihar, which is similar to *Jatra* in West Bengal. This paper also seeks to understand cross-cultural communication between Bhojpuri and Bengali folk culture. The cross-cultural and emotional connectivity will be substantiated with several folk songs and plays developed by famous folksinger and playwright like Bhikhari Thakur, who is also known as Shakespeare of Bhojpuri. Many of Bhojpuri folk songs reflect the memory and emotions with Kolkata city as the city of not only survival for migrant labourers of Bihar but also as the city where their beloved has moved. It reflects the beauty of Indian composite culture and unity in diversity where we learn each other's language, art and craft and embrace and respect each other's festivals. This paper is an attempt to map that confluence of culture in Bhojpuri folksongs and theatre.

### 2. Kalcutta (Calcutta) as Perceived in the Songs and Theatre of Bhikhari Thakur

Bhikhari Thakur (1887–1971), a poor lower-caste barber who worked as a migrant labourer in Kolkata, developed the theatrical form *bidesiyā*. Author of dozens of famous plays and numerous songs, Bhikhari Thakur founded his *bidesiyā* travelling troupe around 1916 when the indentured migration was at its peak.<sup>1</sup> As a migrant labourer working in various other parts of Eastern India, Bhikhari Thakur was able to watch several kinds of performances. Thakur, at the age of 30, had to leave for 'Pardes' (foreign land). At that time Kolkata was perceived as 'Pardesh' in the common parlance. It was the land of survival for many people of the Bhojpuri region. Bhikhari Thakur's uncle, who was in Medinipur, got him a barber's job at Kharagpur. He worked as a labourer in the day time and read Ramayana in the nights there. He went to Jagannathpuri, where he saw the 'Jatra', before returning to Kolkata and subsequently to his village. His play *Bidesiya* depicted not only the fraudulence in recruitment and hardship faced by labourers on the plantation of sugar colonies<sup>2</sup> but also the sorrow of the young bride. Her husband was forced to leave her in the village and go to *Pardes* (Calcutta) to look for a job. His plays usually enacted on benches inside tents or in the open on wooden planks covered with durries. Therefore the *Bidesiya* theatre drew massive attention of the audience. Thakur, who is also popularly known as Shakespeare of Bhojpuri, was the first person to cast male actors in female roles wearing female clothes.<sup>3</sup> Despite all his extraordinary skills, he felt hurt if somebody addressed him as 'Re' or as 'Bhikhariya'. In *Nai Bahar*, he wrote, "*Sabse kathin jaati apmana*" (Humiliation of one's caste is the most difficult to stomach). His pen rebelled

<sup>1</sup>BrahmParakash, 'Performing Bidesiya In Bihar . Strategy for Survival, Strategies for Performance, Asian Theatre Journal , vol. 33, no.1, January 2016, p. 64.

<sup>2</sup>P. PratapKumar, *Indian Diaspora " Socio-Cultural and Religious worlds, United Kingdom: Brill Academy, 2015.*

<sup>3</sup>See. Social and cultural dimensions of Indian indentured labours and its diaspora, London: Routledge 2016.

against the social heritage that deprived humans of humanity by depicting the pain of the women in his writings. In those days, the system of selling off the daughters was prevalent among the upper castes. Poor parents, who could not arrange a dowry for their daughters, sold them off as wives to old or unsuitable men. Thakur wrote a heart-rending play *Beti Vivog* to protest against this practice. The play, popularly known as *Beti Bechwa* (Selling Daughters) had such an impact in the Bhojpuri-speaking region that at many places girls refused to get married. At other sites, the villagers drove away from the grooms. In 1964, the play was being staged in Kumardhvi area of Dhanbad district. During one of the shows, more than 500 labourers of Hazaribagh district broke down. They marched to a nearby Shiv temple and took an oath that they would never sell their daughters. This incident took place at Layakdeeh Colliery.

### 3. The Convergence of Bhojpuri and Bengali Folk Culture

Bhikhari Thakur was a revolutionary who did not go for traditional, contemporary drama. His plays, which he called '*nach*' or '*tamasha*', depicted the pains and pleasures and the hopes and aspirations of the people at the very bottom of the social hierarchy. His dance troupe performed at Kulti, an industrial township in West Bengal. Many people have developed a typical prejudice against the adjective '*nachaniya*' and lost interest in him. However, for many, he was the hero of the common man. His performances of play went to the rural hinterlands of, Chhapra, Balia, Ara and Patna, as well as Kolkata and the colliery areas.

Despite being born in the barber caste, receiving little education, and struggling with poverty, humiliation and apathy all his life, the way, he managed to build his personality-filled with curiosity and great respect for him.

### 4. Folk Culture as a Tool of Transformation of Society

In the context of Bhojpuri culture, Bidesiya tradition became the subaltern culture as counterposed to elite culture.<sup>4</sup> Migration was a phenomenon among the lower classes during the late 19<sup>th</sup> and the early 20<sup>th</sup> centuries. Bidesia can be located in the context of the turmoil in the wake of colonial expansion. Bhikhari Thakur who had moved out of his rural location to see the world had come back with new ideas from the city Calcutta which he adapted to Bhojpuri subaltern classes.<sup>5</sup> Bidesia represented a mode of protest. Their folk songs of this period are narratives of their woes. Through oral tradition, the passing down of these songs from generation to generation seems to be part of cultural politics of the indentured labour of the Bhojpuri region.

Such cultural expressions in the absence of any other overt form of protest did contest power.<sup>6</sup> The most important part of Bhikhari Thakur's play was the content which gave voice to the pain and misery of the migrant labourers, daughters, widows, older men and women and Dalits and Backwards and he did this risking physical attacks and persecution. People went to see his plays ignoring the fiats of

their families. Besides *NaiBahar* and *Beti Vivog*, Bhikhari also tried to suggest a comprehensive solution to the caste war in Hindu society through his *Chauvaran Padvi*. While the Hindi-speaking belt never witnessed a renaissance, whatever little happened in that direction was the contribution of Bhikhari Thakur and others like him, including Rasul Miyan of Gopalganj, Hajjam of Siwan, Fida Hussain Narsi of Moradabad and Pandit Radheshyam of Bareilly. They all were playwrights who dealt with social issues and rural awareness. The significance of Bhikhari Thakur as an essential historical and cultural figure of Eastern India is in his creative amalgamation of religious and secular, tragedy and comedy, traditional and modern in *bidesiyā*. He integrated dance drama, music, song, dress, design, lighting, and technology, incorporating everything he found appropriate and exciting from other famous theatres. He re-created stories and songs from *Rāmachariatmānas* (Story of Rama) and *Māhābhārata* with his interpretations and innovations. His life is an example of how a person can rise above his self. Thakur busted many myths of the world of literature, culture and art. He established that a hero could be from anywhere – even from the bottom of society. Moreover, only such a hero can understand and identify with the pains and disappointments of the people.<sup>7</sup>

In India's largest linguistic region, i.e., the Bhojpuri region, migration has created three distinct folk traditions – the *Banjiya* (trader) tradition, the *Sipahiya* (soldier) tradition, and the *Bidesiya* (foreigner) tradition. Despite being entrenched in social and cultural differences, the sentiments in these traditions have had mutual interaction. Migration in the Bhojpuri region has primarily meant out-migration of men, the effects of which are pressing on women. In the absence of men, several responsibilities have to be shouldered by women, which involve a wide array of roles. In this process, women have to emotionally suffer separation on the one hand and endure familial and social oppression (including sexual exploitation) on the other. A cursory look at any aspect of folk traditions is enough to show that while the exploited side of separated women is highlighted, the empowered facet is underplayed. This cynical yet idealistic imagery of women is particularly true of songs and stories are sung and told by men, and to a lesser degree, those by upper-caste women. The image is of an oppressed, betrayed and down-trodden woman who has not found her voice to protest.

In contrast, some of the folksongs of low-caste women are potent symbols of resistance, sometimes quite shrill and even vulgar going by standards of the language. Vulgarity and frivolity in language create in the minds of the opposition an image of an empowered entity, even though the former casts these songs stress as uncivilised, rustic, backward, and so on.. Folksongs are oral traditions stored in memory, locked inside which a feminine ideology has historically questioned traditional hierarchies and revealed cruel social realities.<sup>8</sup>

### 5. Conclusion

We all know that India is called the land of unity in diversity. There are numerous cultures which have distinct

<sup>4</sup>See Chandrashekhar's dissertation, 'Subaltern Articulation: Examining the Bidesia Dance -Drama form of the Bhojpuri Region', M.Phil. dissertation submitted to JNU, p.14.

<sup>5</sup> Ibid, 21.

<sup>6</sup> Ibid, 26.

<sup>7</sup>[https://www.forwardpress.in/2017/01/bhikhari-thakur-lifes-nachaniya/retrieved on 1.02.2020.](https://www.forwardpress.in/2017/01/bhikhari-thakur-lifes-nachaniya/retrieved%20on%201.02.2020)

<sup>8</sup> See, Dhananjay 'The image of Women in Folk Traditions of Migration' Journal of Migration Affairs.

characteristics and still co-exist. This research explored the potential of cultural coexistence, with particular reference to Bhojpuri and Bengali folk culture. By going through the folk culture of Bhojpuri, I found that it has learned a lot from Bengali culture. Furthermore, the influence of Bhojpuri folk culture can also be seen on Bengali culture. The Shakespeare of Bhojpuri

started a remarkable journey of his play and *tamasha* from Calcutta. Meanwhile, we see that amalgamation of both the cultures have developed a deep-rooted organic cultural - emotional bonding, mutual respect and shared experience which enabled their culture to grow further.

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# Recent Advances in Psychology

An International Journal

Vol. 5 (1) March

2018

ISSN- 2395-5465

A Half Yearly Peer-reviewed Journal

UGC Approved: No. 43276

### Editors

• Prof. R.N. Singh

• Prof. I.L. Singh



**Department of Psychology**

Banaras Hindu University

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# Recent Advances in Psychology

## An International Journal

Vol- 5 (1), March 2018

ISSN- 2395-5465

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## Effects of Instructional Encoding, Exposure Time and Emotional Pictures on Recognition Memory for Entirely Identical Pictures

Santosh Kumar\*, R. N. Singh\*\* & Tara Singh\*\*\*

### Abstract

*The present study examined the effect of instructional encoding, exposure time and emotional content of pictures in a recognition memory task. Twenty-four participants (N = 24) participated in this study. A 2(Instructional encoding: incidental and intentional) × 2(Exposure time: 250ms and 500ms) × 3(Emotional pictures: positive, negative and neutral) mixed factorial design with repeated measures on the last two factors was used. Instructional encoding served as the between subjects factor while exposure time and emotional pictures were treated as within subjects factor. The picture presentation and recognition task was developed using SuperLab 5.0. Results reveal exposure time and emotionality of pictures as potential factors, influencing the picture recognition under intentional and incidental encoding of instructions. It also theorizes that a change in exposure time should be accompanied with change in recognition of different emotional pictures.*

**Keywords:** Recognition memory, Exposure time, Emotion, Instructional Encoding

A natural interest in emotion-memory interactions is central to the resolution of memory being enhanced or impaired by emotions. The central theme examining the emotion-memory research assumes emotion as merely arousal system which may influence encoding, processing or retrieval systems. Encoding engrained with superior emotional intensity may lead to improved consistency of memory capacities though errors occur (Levine & Pizarro, 2004). Emotion borne better memories take into account the fact whether the information is self-referential; recalled or recognized; examined immediately or some time gap is there and also the fact whether the information is allowed to be appraised by the

participants themselves or the experimenter has been able to control it (Blaney, 1986; Eich & Forgas, 2003). This proposition contains in within the construct of emotion-congruent memories as well. The emotional memories are therefore, detailed and last longer (LeDoux, 2000). An immediate appraisal of an emotional event is not entirely guided by the past events only rather they tend to direct future behavior (Levine & Safer, 2002). It posits that emotional memory may play a central role in examining events but an as-it-is replication would be far from reality. This can be attributed to the fact that emotions may be contained in detailed (detail) or condensed (gist) form. The greater likelihood of emotional events being

\*Research Scholar, Department of Psychology, Banaras Hindu University, Varanasi U.P.

\*\*Professor, Department of Psychology, Banaras Hindu University, Varanasi U.P.



Indian Journal of  
**Human Relations**  
An International Journal

33-2

Vol. 52

Issue-1

Jan-June 2018

ISSN-0974-1089

Listed in U.G.C. List of Approved Journal

Chief Editor

Prof. R.N. Singh

**PASSH**  
(Estd. 1989)

Purvanchal Academy of  
Social Sciences & Humanities, Jaunpur

E-mail: [ijhrpu1993@gmail.com](mailto:ijhrpu1993@gmail.com)

- The conclusions and views expressed in the papers are of the authors concerned, not of the Editorial Board.
- The jurisdiction for all the disputes shall be Jaunpur, U.P.





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Vol- 52 Issue-1 Jan.-June 2018 ISSN-0974-1089

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# Investigating Emotion and Memory Trade-offs in Humans

Santosh Kumar\*, R. N. Singh\*\* & Tara Singh\*\*\*

## Abstract

*Trade-offs subserve to achieve compatibility between two compatible yet competing systems at the cost of one another. An automatic attention-allocation and prioritized processing of emotionally salient stimuli in a limited-capacity perceptual system is accompanied with encoding and trade-offs. The encoding thereof may be intentional or incidental. Emotionality adds intentionality to the information to be retained. An emotion-induced memory trade-off leads to better recall for emotional information at the cost of background informations. The trade-off function directs the attention towards emotional and central information in comparison to non-emotional/background and peripheral informations. However, the exact nature of emotion-induced-trade-off remain can be explored by controlling the non-emotional factors.*

**Keywords:** Emotion, Memory, Trade-off, Encoding

(Papers Received : 7 June 2018, Peer reviewed : 17 June 2018, Revised/Accepted : 29 June 2018)

It can be experience that memory linked with emotional events is better compared to non-emotional events. An enormous amount of inquiry, in this field, has suggested that emotion bestows memory advantages (Kensinger, 2006; Mather, 2003). Generally, memories are preserved with precision but humans also do not create a genuinely photographic memory as it is difficult for individuals to retain their memory with the minute details of an event. Preferably, some features from the events are remembered with accuracy, whereas others are difficult to recall and may fade away as the time passes. These results have been consistent in the laboratory settings for complex visual scenes. However, it has been shown that the participants may remember some aspect of the given scene but often fails to remember the details of the scene (Burke, Heuer & Reisberg, 1992; Kensinger, Garoff-Eaton, & Schacter, 2007). Emotion in general has been found to improve memory in an extensive variety of laboratory studies in a number of experimental tasks where participants

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\*Research Scholar, Department of Psychology, Banaras Hindu University, Varanasi, Uttar Pradesh

\*\*&\*\*\*Professor, Department of Psychology, Banaras Hindu University, Varanasi, Uttar Pradesh

2018



# Effect of various reduction methods of graphene oxide on electromagnetic shielding performance of reduced graphene oxide against electromagnetic pollution in X-band frequency

Ramesh Kumar<sup>a,b</sup>, Amarjeet Kaur<sup>a,\*</sup>

<sup>a</sup> Department of Physics and Astrophysics, University of Delhi, Delhi, 110007, India

<sup>b</sup> Ramjas College, University of Delhi, Delhi, 110007, India

## ARTICLE INFO

### Keywords:

Reduced graphene oxide  
Electromagnetic shielding  
Electrical conductivity  
Semiconductors  
Dielectrics

## ABSTRACT

A comparative study based on the effect of various novel reduction techniques for the fabrication of devices for electromagnetic interference (EMI) shielding in X-band frequency is reported. Among various reduction methods, we have used hydrazine hydrate and thermal annealing, low energy ion beam implantation and swift heavy ion irradiation. The synthesis as well as reduction of the samples is confirmed by the Raman spectra and FT-IR studies. The room temperature dc electrical conductivity is correlated with the extent of reduction of graphene oxide samples. The sample reduced with hydrazine hydrate and swift heavy ion irradiation of  $\text{Ag}^{+8}$  at 100 MeV has highest dc electrical conductivity value, which leads to higher EMI shielding effectiveness of 55.29 dB and skin depth of 0.0188 cm. It is also observed that the skin depth decreases with increase in electrical conductivity. This suggests a strong potential of these samples for high performance EMI shielding applications.

## 1. Introduction

Electromagnetic interference (EMI) has been increasing rapidly with the advance development in the various electronic devices and systems, especially in the field of communication facilities and wireless networks [1–6]. EMI leads to adverse effects on highly sensitive equipment as well as on human health [3,4]. Hence, the development of high performance EMI shielding material is imperative [1–6]. Over the past few decades, metal based compositions are regarded as the traditional and common materials due to their high electrical conductivity. However, their use as EMI shielding materials is limited due to certain disadvantages such as high density, corrosion susceptibility, weight penalty and difficult processing [1–6]. Recently, carbon based materials such as conducting polymers [7,8], graphite [9], carbon nanotube [10,11], reduced graphene and their composites [1–5,10–12] have been widely used for EMI shielding applications because of their high performance, non-corrosiveness, cost effectiveness and lightweight properties.

Reduced graphene oxide is an intermediate step between graphene and graphene oxide [12]. The graphene oxide is graphene sheet consisting of oxygen functional groups which decorate the basal plane and the edges of the graphene sheets. The removal of oxygen functional groups leads to the transformation of the graphene oxide into the

reduced graphene oxide like semiconductor and ultimately to a graphene like semimetal [12,13]. There are several ways of reduction of graphene oxide which includes physical as well as chemical methods [14–20]. Reduction of graphene oxide is very significant for graphene oxide samples. The reduction changes various properties of graphene oxide such as electrical conductivity, specific surface area etc [15,21].

In the physical reduction methods, thermal annealing is highly significant due to simple processing [12,14]. However, chemical reduction in presence of hydrazine hydrate is significantly useful in chemical deoxygenation of selective functional groups from graphene sheets [14,15,19]. Along with benefits, these methods have their own drawbacks. The thermal annealing cannot be used for reduction of graphene oxides on the low melting point substrates also it requires critical temperature treatment [14,21]. Whereas, the chemically reduced graphene oxide has comparatively lower electrical conductivity [14,15,19]. To overcome the limitations of single step reduction process, multistep reduction process has been reported in the literature [14,21]. Therefore, in the present investigation, we are reporting two different multistep reduction processes. In first process, we have reduced graphene oxide samples with hydrazine hydrate followed by further reduction with low energy nitrogen ion ( $\text{N}^{+}$  at 50 keV) beam implantation. In the second process, we have again reduced graphene oxide by hydrazine hydrate followed by reduction with 100 MeV

\* Corresponding author.

E-mail address: [amarlaur@physics.du.ac.in](mailto:amarlaur@physics.du.ac.in) (A. Kaur).

ISSN 0973-0117



Volume 17  
Number 1-2  
2018

# MODERN JOURNAL OF LIFE SCIENCES

*Published by*  
**SOCIETY OF LIFE SCIENCES OF INDIA**  
<https://sites.google.com/site/modernjlifesci>

# IMPACT OF SEASONAL VARIATION ON THE HAEMATOLOGY OF HETEROPNEUSTES FOSSILIS

Sudhanshu Shekhar Bhaskaram

Department of Zoology, A.S. College, Bikramganj, Rohtas.

## ABSTRACT

Length and breadth of erythrocytes ranged between 11.01 to 12.04 and 7.05 to 7.63  $\mu\text{m}$  respectively. Length and breadth of erythrocytes nucleus ranged between 3.98 to 4.02 and 3.73 to 3.79  $\mu\text{m}$  respectively. The maximum TEC was  $2.61 \times 10^6/\text{mm}^3$  and the minimum TEC was  $2.18 \times 10^6/\text{mm}^3$  in rainy and winter season respectively. The haemoglobin content was minimum in summer season while maximum in rainy season. The PVC was maximum in rainy season and minimum in winter season. The maximum and minimum MCV was observed in summer and rainy season. The MCH was maximum in winter and minimum in rainy season respectively. The MCH was maximum in winter and minimum in rainy season. The MCHC and blood sugar was maximum in winter and minimum in summer season. The amount of protein and cholesterol was maximum in winter and minimum in rainy season.

**Keywords :** Erythrocytes, haemoglobin, PVC, MCV, MCH, MCHC, sugar, protein, cholesterol, blood, *Heteropneustes fossilis*.

## INTRODUCTION

Fishes are one of the main supplementary diet because of its cheap protein rich value. The piscine haematology resembles with other vertebrates in basic composition but fishes shows variation in their blood contents due to diversified habit. In the field of pisciculture morphology and morphometry of erythrocytes have been an excellent yardstick to ascertain the health condition of fishes. In present paper morphology of erythrocytes, total erythrocytes count, haemoglobin, PVC, MCV, MCH, MCHC, blood sugar, protein and cholesterol was evaluated in relation to different ecological conditions which prevail during different season of the year.

## MATERIALS AND METHODS

*Heteropneustes fossilis* were collected from semi direlict swamps situated in and around Bikramganj, Rohtas. They were transported to the laboratory in plastic containers and transferred to perfectly cleaned large sized glass aquaria.

Haemetological methods used during the experiment was as per Dacie and Lewis (1963). Quantitative estimation of blood sugar, protein and cholesterol has been done by the method adopted by Nelson (1944), Varley (1976) and Henly (1957) respectively.