

Review Form 3

Journal Name:	Journal of Materials Science Research and Reviews
Manuscript Number:	Ms_JMSRR_130745
Title of the Manuscript:	Development and Mechanical Properties of Compacted Graphite Cast Iron (CGI) Suitable for Exhaust System Pipes.
Type of the Article	

General guidelines for the Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guidelines for the Peer Review process, reviewers are requested to visit this link:

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PART 1: Comments

	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	The researcher has addressed the drawbacks in the exhaust system parts for automotive applications and suggested the alternate candidate material based on the investigation of mechanical properties	
Is the title of the article suitable? (If not please suggest an alternative title)	YES	
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	The results from the mechanical tests show that C4 has the optimum values of 1.5 Megapascal for tensile strength, 615% for ductility – Values needs to be verified	
Is the manuscript scientifically, correct? Please write here.	YES	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	Incorporate recent journals (2023, 2024) in the literature review	

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Is the language/English quality of the article suitable for scholarly communications?	YES	
Optional/General comments	<div><div>➤ Incorporate recent journals (2023, 2024) in the literature review</div><div>➤ Practical significance of inoculants, spherodizers and Nodularizers is not highlighted in the work</div><div>➤ Detailed investigation of exhaust system failure analysis is not highlighted in the work</div><div>➤ Verify the ASTM standard for Impact and tensile strength studies and the same is not highlighted in the work</div><div>➤ Tensile test results for all the samples shows the minimum value and how such minimum value is suitable for exhaust pipe applications – Needs a clarification</div><div>➤ As Hardness is directly proportional to strength, low tensile strength was observed for both C3 and C5 samples - Needs a clarification</div><div>➤ Percentage of carbon remains same for all the samples (C1 to C6) and verify the percentage required for Ductile Iron - Needs a clarification</div><div>➤ More Ductility value (above 20%) was observed for C4 and C5 samples - Needs a clarification</div></div>	

PART 2:

	Reviewer’s comment	Author’s comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	(If yes, Kindly please write down the ethical issues here in details)	

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