

13th International High Energy Materials Conference & Exhibits (HEMCE-22) May 26-28, 2022

(Third List HEMRL Papers Only)

The following papers from **HEMRL, Pune** based on extended abstract have been accepted by organizing committee for 13th International High Energy Materials Conference & Exhibits (HEMCE-22) May 26-28, 2022.

Sr No	Author Name		Paper Title
	Last Name	First Name	
1.	Agrawal	Vaibhav	A Comparative Study of Neutrality of Pressure-Time/Thrust -time Profiles of Different Propellant Grain Configurations for BEM Applications
2.	Dombe	Ganesh	A Method for Estimation of Stress-free Temperature of Solid Propellant Rocket Motor
3.	Patil	Jay	Ammonium Dodecahydrododecaborate (NH ₄) ₂ (B ₁₂ H ₁₂) Potential Fuel for Ramjet, Scramjet and Turbojet Engines
4.	Bihari	Bipin	An approach to estimate the strain rate sensitivity of composite propellant
5.	Wagh	<u>Rashmi</u>	Assay Of Ingredients Present Intatb Based High Explosive Compositions
6.	Pandey	PK	Automation of Burn Rate (BR) Computation - Development & Implementation of Algorithm
7.	Adak	PK	Correlation Between Thermal Stability And Band Gaps Of TKX-50 And Its Key Precursors
8.	Dombe	Ganesh	Cure Kinetics Characterisation and Design of Curing Cycle for Active Binder Based Composite Propellant
9.	Mhaske	N.D.	Design and Development of Pyro Millisecond Delay Detonator for Munitions
10.	Vishwakarma	A. K.	Development of a MATLAB based Graphical User Interface (GUI) for rapid evaluation of ballistic parameters required for design of impulse cartridge
11.	Singh	Darshana	Development of Biodegradation Method for Composite Propellants and Recovery of Ammonium Perchlorate
12.	Singh	PP	Development of non-toxic color smoke composition for target marking/signaling purpose
13.	Verma	Pankaaj	Development of Polyisoprene based Composite Propellant with High Burn Rate and High Specific Impulse for Ramjet Propulsion System
14.	Kishore	Shyam	Development of Quantity Distance Software for Siting of Explosive Buildings in Explosive Establishments
15.	Yadav	Abhay	Development Of Tape Based Inhibition System For Extruded Double Base Propellant Grains

16.	Chowdhury	P S	Developmental challenges of Curved Pyrotechnic Delay for DASD Fuze of Pinaka Rocket
17.		Rohit	Effect of Nitramine on Physical, Mechanical, Ballistics and Sensitivity Properties of Composite Propellant
18.	Adak	P K	Effect Of Ostwald Ripening For Modifying The Particle Size Distribution And Average Particle Size Of Reduced Sensitivity - Rdx
19.	Siddique	M A	Effect of Particle Size, Stoichiometry of Composition & thermal conductivity of Hardware on Pyrotechnic delay
20.	Sane	Anirudha	Estimation Of Alignment Of Liner With Booster In A Shaped Charge By Processing Of Radiography Images
21.	Katore	MS	Evaluation of Fuel Rich Explosive Formulations for High Impulse Blast and Thermal Effects
22.	Nag	L S	Fabrication of Nano Iron Oxides (α -Fe ₂ O ₃) by Ball Milling for Propellant Formulation
23.	Adak	P. K	Feasibility Study for Preparation of Dihydroxylammonium 5,5'-bistetrazole-1,1'-diolate (TKX-50) by Safe Route- Three Step Reaction
24.	Debnath	D	Feasibility Study Of Welding /Joining Ballistic Evaluation Motors (Bem) By Rotary Friction Welding
25.	Jain	Mukesh	Flow analysis during pressure casting of propellant slurry in multiple rocket motor
26.	MSSNM	Santosh	FOX-7 based Low Signature Advanced Energetic Propellants
27.	Meena	A K	Ftir Spectroscopic Study On Reaction Profiling And Rate Kinetics Of Tetrafunctional Gap Process
28.	Raveendran	Sidharth	Importance of Rheological studies in developing process for NBR/Nitrate Esters/Nitramines based High Energy Propellants manufacturing
29.	Sonawane	<u>S H</u>	Investigation Of Process Impurities Of 2,4-Dinitroanisole (Dnan): An Insensitive Melt-Pour Explosive
30.	Vijayalakshmi	R.	Low Critical Thickness And High Performance Flowable Explosive Inks
31.	Singh	AP	Mass Spectral Studies On Poly (Acrylonitrile-Co-Butadiene) Recovered From Propellant
32.	Mishra	KK	Measurement of free field blast pressure inside Fireball using dual probe sensor
33.	Rao	PC	Modeling of shock transmission between reactive elements of Explosive Reactive Armour (ERA) for sympathetic detonation studies
34.	Anniyappan	M	MTX-1: A Thermally Stable Alternative To Tetrazene In Primer Applications
35.	Vijayalakshmi	R.	Nitroisobutylglycerol Trinitrate (Nibgtn): An Energetic Plasticizer For High Energy Propellant Formulations
36.	Kumar	Deepak	Numerical studies for curing of solid rocket propellant using CFD Analysis

37.	Patil	AN	Optimization of Ejecta Size for Pulse Triggered Combustion Instability
38.	Godse	R.	Optimization Of Mechanical Properties Of Htpb Based Binder For Case Bonded Application: Effects Of Nco/Oh, Chain Extender, Cross Linker, And Plasticizer Content
39.	Khan	MAS	Optimization Of Process Parameters For Glyoxime Preparation: A Key Precursor Of TKX-50
40.	Mishra	AK	Poly-formaldehyde as a burn rate suppressant in spinning rocket motor based on Extruded Double Base Propellant
41.	Singh	A	Prediction Of Thermal Conductivity Of Binder Systems Of High Energy Propellant Using Reverse Non Equilibrium Molecular Dynamic Simulation Method
42.	Singh	J.	Probing Ammonium Dinitramide (Adn) Priling Through Optimization Of Process Parameters
43.	Ghosh	Kavita	Probing HTPB based Polymer-Clay Nanocomposites (HCN) for Composite Propellant Application
44.	Dombe	Ganesh	Process Development of Continuous Mixing for Composite Propellant
45.	Singh	AP	Quantitative Estimation Of Uncured Polymeric Binder In High Performance Composite Propellants
46.	Bipin	Bihari	Simulation of Stress relaxation behavior of composite propellant using Generalized Maxwell model
47.	Limbat	<u>Karishma</u>	Spheroidization studies On Hmx By High Shear Rotor-Stator Method
48.	Kulkarni	Prashant	Stand-off detection of explosive vapors using far-IR spectroradiometry of Pyoverdine-pyridine functionalized steel surface
49.	Anuragi	Ashwani	Studies on design approach for Gas Generator used in Deployment of projectile
50.	Debnath	S	Studies on effects of surface coating of priming composition on performance parameters of an IR decoy flare
51.	Garaj	Purabi	Studies on Less Sensitive Polyurethane Coated TATB Formulations
52.	Giju	S	Studies on mechanical property of polymer bonded explosive compositions
53.	Rawal	Sukeshni	Studies On Morphology, Thermal And Combustion Behaviour Of AlB_{12} / NH_4ClO_4 Pyrotechnic System For Igniter Application
54.	Jain	Pallav	Studies on Preparation of Ultrafine Ammonium Perchlorate by spray drying method
55.	Kumar	Abhishek	Studies On Process Development And Optimization Of Synthesis Of Nano Barium Promoted Copper Chromite Catalyst
56.	Kumar	Umesh	Studies on tailoring of ejection velocity for IR flare
57.	Singh	Harjeet	"Study Of Variation In C^* With Respect To Primary Chamber Pressue In Solid Fuel Thrust Modulated Ducted Rocket Ramjet Propulsion System"

58.	Kumar	Nitin	Study on Capability curves to optimize the Ratio of Reactive Functional Groups of Composite Propellant
59.	Sonawane	<u>S H</u>	Synthesis & Characterization Of 2,4-Bis(Nitrile Oxide)-1,3,5-Triethylbenzene: A Low Temperature Curing Agent For High Energy Propellants
60.	Katore	MS	Theoretical and experimental study for evaluation of an underwater blast explosive composition
61.	Jain	Sunil	Thermal Decomposition Study of Ammonium Perchlorate in the Presence of Barium Ferrite ($BaFe_{12}O_{19}$) and its evaluation in Propellant Compositions
62.	Adak	PK	Thermal Hazards Evaluation For Azidation Of T-Pech To T-Gap Using Thermalscreening Unit (TSU)
63.	Kalal	RK	Thermo-physical Properties and Combustion Wave of HMX, Energetic binder and Zr Contain Composite Propellant
64.	Vipin	Lisha	Very low burning rate propellant compositions for sustainer applications

- Prepare and submit full paper as per instructions given on website www.hemsichd.org.
- The fourth list of accepted papers based on abstract will be displayed soon.