


## Samarth eGov

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Designation	Assistant Professor					
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Employement Info		
Employee Type	Nature Of Employment	
Teaching	Permanent	
Educational		
Degree	Institution	Year
Ph.D. - Investigation of structure, properties and applications of bulk and nanoscale intermetallic compounds derived from AIB2-prototype	Jawaharlal Nehru Centre for Advanced Scientific Research	2016
PG	University of Kalyani	2010
UG	University of Kalyani	2008

HSC	West Bengal Council of Higher Secondary Education				2005			
SSC	West Bengal Board of Secondary Education				2003			
Qualifications								
Examination Name			Conducted By			Date of Passing		
NET			CSIR			2010-10-18		
Research Publications								
Article Name		Publication Type	Journal Name	ISSN No	Volume	Year	URL	DOI
Diversity in Crystal Structure and Physical Properties of RETX3 (RE – Rare Earth, T – Transition Metal, X – Main Group Element) Intermetallics		Research Papers in Peer Reviewed Journals	Chemical Records		22	2022		
Giant Non-Resonant Infrared Second Order Nonlinearity in γ -NaAsSe2		Research Papers in Peer Reviewed Journals	Advanced Optical Materials		10	2022		
Dissociation of GaSb in n-type PbTe: off-centered Gallium atom and weak electron–phonon coupling provide high thermoelectric performance		Research Papers in Peer Reviewed Journals	Chemistry of Materials		33	2021		
Synergetic effect of Ni-substituted Pd2Ge ordered intermetallic nanocomposites for efficient electrooxidation of ethanol in alkaline media		Research Papers in Peer Reviewed Journals	ACS Applied Energy Materials		2	2019		
The Effect of Spark Plasma Sintering on Microstructure Evolution in Thermoelectric Materials		Research Papers in Peer Reviewed Journals	Microscopy and Microanalysis		24	2018		
Dual Alloying Strategy to Achieve a High Thermoelectric Figure of Merit and Lattice Hardening in p-Type Nanostructured PbTe		Research Papers in Peer Reviewed Journals	ACS Energy Letters		3	2018		
Ce2PtGe3: a new ordered orthorhombic superstructure in the AIB2 family with spin glass behavior		Research Papers in Peer Reviewed Journals	Inorganic Chemistry Frontiers		4	2017		

Facile aqueous-phase synthesis of the PtAu/Bi <sub>2</sub> O <sub>3</sub> hybrid catalyst for efficient electro-oxidation of ethanol	Research Papers in Peer Reviewed Journals	ACS Applied Materials & Interfaces	9	2017
Synthetically tuned structural variations in CePdxGe <sub>2-x</sub> (x= 0.21, 0.32, 0.69) towards diverse physical properties	Research Papers in Peer Reviewed Journals	Inorganic Chemistry Frontiers	4	2017
Chemically designed CeO <sub>2</sub> nanoboxes boost the catalytic activity of Pt nanoparticles toward electro-oxidation of formic acid	Research Papers in Peer Reviewed Journals	Journal of Materials Chemistry A	5	2017
Magnetic and X-ray absorption studies on the RE <sub>5</sub> X <sub>2</sub> Sb <sub>6</sub> (RE= Eu, Yb; X= Al, Ga, In) compounds	Research Papers in Peer Reviewed Journals	Journal of Alloys and Compounds	658	2016
Layer specific optical band gap measurement at nanoscale in MoS <sub>2</sub> and ReS <sub>2</sub> van der Waals compounds by high resolution electron energy loss spectroscopy	Research Papers in Peer Reviewed Journals	Journal of Applied Physics	119	2016
Selective colorimetric detection of Cu <sup>2+</sup> by lanthanide based hybrid complexes associated with a single crystal growth mediated transformation	Research Papers in Peer Reviewed Journals	Journal of Materials Chemistry C	4	2016
Enhanced air stability in RE <sub>3</sub> Pb <sub>3</sub> (RE= Rare Earths) by dimensional reduction mediated valence transition	Research Papers in Peer Reviewed Journals	Inorganic Chemistry	55	2016
Heterostructure composites of rGO/GeO <sub>2</sub> /PANI with enhanced performance for Li ion battery anode material	Research Papers in Peer Reviewed Journals	Journal of Power Sources	306	2016
Crystal structure and band gap engineering in polyoxometalate-based inorganic-organic hybrids	Research Papers in Peer Reviewed Journals	Inorganic Chemistry	55	2016
A review on the synthesis, crystal growth, structure and physical properties of rare earth based quaternary intermetallic compounds	Research Papers in Peer Reviewed Journals	Journal of Solid State Chemistry	236	2016
Metal flux growth, structural relations, and physical properties of EuCu <sub>2</sub> Ge <sub>2</sub> and Eu <sub>3</sub> T <sub>2</sub> In <sub>9</sub> (T= Cu and Ag)	Research Papers in Peer Reviewed Journals	Inorganic Chemistry	55	2016

Ordered Pd <sub>2</sub> Ge intermetallic nanoparticles as highly efficient and robust catalyst for ethanol oxidation	Research Papers in Peer Reviewed Journals	Chemistry of Materials	27	2015
Structure and physical properties of RE <sub>2</sub> AgGe <sub>3</sub> (RE= Ce, Pr, Nd) compounds	Research Papers in Peer Reviewed Journals	Journal of Solid State Chemistry	229	2015
Eu <sub>3</sub> Ir <sub>2</sub> In <sub>15</sub> : A mixed-valent and vacancy-filled variant of the Sc <sub>5</sub> Co <sub>4</sub> Si <sub>10</sub> structure type with anomalous magnetic properties	Research Papers in Peer Reviewed Journals	Inorganic Chemistry	54	2015
Structural and magnetic properties of Nd <sub>2</sub> NiGe <sub>3</sub>	Research Papers in Peer Reviewed Journals	Journal of alloys and compounds	632	2015
Mixed valence and metamagnetism in a metal flux grown compound Eu <sub>2</sub> Pt <sub>3</sub> Si <sub>5</sub>	Research Papers in Peer Reviewed Journals	Journal of Solid State Chemistry	225	2015
Crystal structure and properties of tetragonal EuAg <sub>4</sub> In <sub>8</sub> grown by metal flux technique	Research Papers in Peer Reviewed Journals	Journal of Solid State Chemistry	226	2015
The crystal structure and magnetic properties of a Zintl phase EuIrIn <sub>4</sub> : the first member of the Eu–Ir–In family	Research Papers in Peer Reviewed Journals	Dalton Transactions	43	2014
Ligand mediated valence fluctuation of copper in new hybrid materials constructed from decavanadate and a Cu (1, 10-phenanthroline) complex	Research Papers in Peer Reviewed Journals	Dalton Transactions	43	2014
Effect of ordered and disordered phases of unsupported Ag <sub>3</sub> In nanoparticles on the catalytic reduction of p-nitrophenol	Research Papers in Peer Reviewed Journals	Journal of catalysis	318	2014
Crystal growth, structure and magnetic properties of Sm <sub>3</sub> Ni <sub>5</sub> Al <sub>19</sub> : A compound in the Sm <sub>2n+m</sub> Ni <sub>4n+m</sub> Al <sub>15n+4m</sub> homologous series	Research Papers in Peer Reviewed Journals	Journal of Chemical Sciences	126	2014
Crystal structure of Yb <sub>2</sub> CuGe <sub>6</sub> and Yb <sub>3</sub> Cu <sub>4</sub> Ge <sub>4</sub> and the valency of ytterbium	Research Papers in Peer Reviewed Journals	Journal of Alloys and Compounds	589	2014
Effect of Li and Mg substitution on the crystal structure and magnetism of the REGa <sub>2</sub> (RE= Ce and Eu) and EuGa <sub>4</sub> compounds	Research Papers in Peer Reviewed Journals	Journal of Alloys and Compounds	582	2014

Yb <sub>5</sub> Ga <sub>2</sub> Sb <sub>6</sub> : A mixed valent and narrow-band gap material in the RE <sub>5</sub> M <sub>2</sub> X <sub>6</sub> family	Research Papers in Peer Reviewed Journals	Inorganic Chemistry	52	2013			
Crystal Structure and Magnetic Properties of Indium Flux Grown EuAuIn <sub>4</sub> and EuAu <sub>2</sub> In <sub>4</sub>	Research Papers in Peer Reviewed Journals	Crystal Growth and Design	13	2013			
Structural Phase Transitions in a New Compound Eu <sub>2</sub> AgGe <sub>3</sub>	Research Papers in Peer Reviewed Journals	Inorganic Chemistry	52	2013			
Crystal Structure and physical Properties of Indium Flux Grown RE <sub>2</sub> AuSi <sub>3</sub> (RE=Eu, Yb)	Research Papers in Peer Reviewed Journals	CrystEnggComm	15	2013			
Metallic Yb <sub>2</sub> AuGe <sub>3</sub> : An ordered Superstructure in the AIB <sub>2</sub> type Family with Mixed Valent Yb and a High Temperature Phase Transition	Research Papers in Peer Reviewed Journals	Inorganic Chemistry	51	2012			
Single Crystal Growth of Europium and Ytterbium Based Intermetallic Compounds Using Metal Flux Technique	Research Papers in Peer Reviewed Journals	Journal of Chemical Sciences	124	2012			
<b>Publications other than journal articles</b>							
<b>Title of Publication</b>	<b>Type of Publication</b>	<b>Publisher</b>	<b>Role in Publication</b>	<b>ISBN Number</b>	<b>Year</b>	<b>URL</b>	<b>Level</b>
Investigation of structural and magnetic properties of Ce <sub>2</sub> Pd <sub>0.6</sub> Ge <sub>3.4</sub>	Full Paper in Conference Proceedings/Other	Neutron Scattering Society of India, Mumbai (India)	Author		2015		National
<b>Foreign Translations</b>							
<b>Published As</b>	<b>Title</b>		<b>Author</b>	<b>Published Date</b>			