

Publications

2013

1. **Varsha Khare**, Min-Pham Qua, Hae-Sung Yoon, Chung-Soo Kim, Jae-Il Park, Sung-Hoon Ahn (2012) **Graphene-Ionic Liquid based Hybrid Nanomaterials as Novel Lubricant for low Friction and Wear**. ACS Applied Materials & Interfaces (Accepted).*

2012

2. **Varsha Khare**, Christian Ruby, Sanjiv Sonkaria, Sung-Hoon Ahn, and Andreas Taubert (2012) **A Green and Sustainable Nanotechnology: Role of Ionic Liquids**. Special issue of green manufacturing and applications, 13 (7)*
3. Sonkaria, S., Fuentes, G., Verma, C., Narang, R., **Khare, V.**, Fratzl P and Faivre D (2012) **Insight into the Assembly Properties and Functional Organisation of the Magnetotactic Bacterial Actin like Homolog, MamK**. PLoS ONE 7(5) e34189
4. Sonkaria, S., Ahn, S.H. and **Khare, V.** (2012) **Nanotechnology and its impact on Food and Agriculture**. Recent patents in Food, Nutrition and Agriculture, 4, 8-18*

2010

5. **Varsha Khare**, Alexander Krupner, Alexandre Manton, Andreas F. Thünemann, Aleksandra Jeličić, Sabine Beuermann, Andreas Taubert, Markus Antonietti, Cristina Giordano. **Stable iron carbide dispersions in [Emim][SCN] and [Emim][N(CN)₂] ionic liquids** (2010) *Langmuir* 26(13) 10600
6. Ayi A. Ayi, **Varsha Khare**, Peter Strauch, Jérôme Girard, Katharina M. Fromm, Andreas Taubert, On the chemical synthesis of titanium nanoparticles from ionic liquids, *Monatshefte für Chemie - Chemical Monthly*, (Accepted 2010)
7. Christian Ruby, Aurélien Renard, Mustapha Abdelmoula, **Varsha Khare** Georges Onanguemab, Guillaume Morinb, Jean-Marie Génin. **Oxidation and thermodynamics of FeII-FeIII (oxy)hydroxycarbonate green rust and fougérite mineral** (2010) *Geochimica et Cosmochimica Acta* (74) 953–966
8. **Varsha Khare**, Zhonghao Li, Alexandre Manton, Ayi A. Ayi, sanjiv Sonkaria, Andreas F. Thünemann and Andreas Taubert, (2010) Strong anion effect on gold nanoparticle formation in ionic liquids, *J. of Materials Chemistry* (DOI: 10.1039/b917467b)

2009

9. Magdalena Wencka, Andreja Jelen, Marko Jagodič, **Varsha Khare**, Christian Ruby, Janez Dolinšek. **Magnetic and EPR study of ferric green rust- and ferrihydrite-coated sand prepared by different synthesis routes** (2009), *J. Physics D: Applied Physics* (42) 245301-245309*
10. Marcel Risch, Franziska Ringleb, **Varsha Khare**, Petko Chernev, Ivelina Zaharieva, Holger Dau, **Characterisation of a water-oxidizing Co-film by XAFS** (2009), *Journal of Physics: Conference Series* (190) 012167-012170
11. M. Risch, **V. Khare**, I. Zaharieva, L. Gerencser, P. Chernev and H. Dau, **Cobalt-oxo core of a water-oxidizing catalyst film** (2009). *J. Am. Chem. Soc.*, 131 (20) 6936–6937

2008

12. **Varsha Khare**, Martine Mullet, Khalil Hanna, Mathias Blumers, Mustapha Abdelmoula, Göstar Klingelhöfer and Christian Ruby **Comparative Studies of Ferric Green Rust and Ferrihydrite Coated Sand : Role of Synthesis Routes** (2008) *Solid state Science* 10(10), 1342-1351*
13. M. Mullet, **V. Khare**, C. Ruby **XPS study of Fe(II)-Fe(III) (oxy)hydroxycarbonate green rust compounds** *Surface and Interface Analysis* (2008), 40(3-4), 323-328.

2006

14. M. Sales, A. Merstallinger, P. Brunet, M. C. de Weerd, G. Traxler, **V. Khare**, and Jean-Marie Dubois **Cold welding and fretting tests on quasicrystals and related compounds**, (2006) *Philosophical Magazine*, 86, 965–970

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15. M. Sales , A. Merstallinger , P. Brunet, M. C. de Weerd , G. Traxler , **V. Khare**, and Jean-Marie Dubois **Quasicrystals - new type of materials to prevent cold welding**,(2005) *Proceedings of Europ. Conf. on Spacecraft Structures*, Materials and Mechanical Testing, ESA-ESTEC, Noordwijk, The Netherlands

2004

16. V. Brien, **V. Khare**, F. Herbst, P. Weisbecker, J.-B. Ledeuil, M.C. de Weerd, F. Machizaud, and J.-M. Dubois **Influences of boron content on the microstructure of sintered Al_{62.5-x}Cu_{25.3}Fe_{12.2}B_x alloys, (x=0, 3, 5)** (2004) *Journal of Materials Research*, **19**, 2974-2980.
17. Daniela Zander, Uwe Köster and **Varsha Khare**. **Hydrogen induced transformations in Zr-Cu-Ni-Al quasicrystals** (2004) *Journal of Non-Crystalline Solids*. **334-335**, 247-252
18. **V. Khare** , R. Janlewing , D. Zander , L. Jastrow , L. Lyubenova and Uwe Köster **Influence of alloying on the formation of Zr-based quasicrystals** (2004) *Journal of Non-Crystalline Solids*, **334-335**, 23-28 *

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19. T. Apih, **Varsha Khare**, M. Klanjšek, P. Jeglič, J. Dolinšek **Hydrogen Diffusion in Partially Quasicrystalline Zr_{69.5}Cu₁₂Ni₁₁Al_{7.5}** (2003) *Phys. Rev. B* **68**, 212202
20. T. Apih, M. Klanjšek, **Varsha Khare**, P. Jeglic, and J. Dolinsek **Hydrogen Diffusion in Quasicrystalline ZrCuNiAl** (2003) *Mat. Res. Soc. Symp. Proc.*, LL3.1

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21. **Varsha Khare**, R.S. Tiwari and O.N. Srivastava. **Some Curious Structural and Microstructural Aspects of Quasicrystalline Phases in Al-Cu-Cr Alloys (review article)** (2002) *PINSA*, **68**, A, 201-234

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22. D. Zander, U. Köster, **V. Khare**. **Transformations in Hydrogenated Zr-Cu-Ni-Al Quasicrystals**, Proc. in: "Quasicrystals", MRS-Symposium 2000, Boston, eds. E. Belin-Ferre, P.A. Thiel, A.-P. Tsai, K.W. Urban, *Mat. Res. Soc. Symp. Proc.* (Pittsburgh 2001), **643**, K2.2.1-K2.2.6
23. **Varsha Khare**, R.S. Tiwari and O.N. Srivastava. **Role of Fe Substitution and Quenching Rate on the Formation of Various Quasicrystalline and Related Phases** (2001) *Bulletin of Material Science*, **24,3**, 257-264*

1995-2000

24. **Varsha Khare**, R.S. Tiwari and O.N. Srivastava. **Stabilization of Icosahedral Phase in Si Substituted Version of Al₆₅Cu₂₀Cr₁₅ Alloy** (2000) *Material Sci : Engg : A* **145** 1-5
25. **Varsha Khare**, R.S. Tiwari and O.N. Srivastava. **On The Curious Structural Phases Al-Deficient (al₆₂cu₂₃cr₁₅) and Al-Rich (al₆₈cu₁₇cr₁₅) Quasicrystalline Alloys** (1997) *Crystal Research & Technology* **32** 4, 543-550
26. **Varsha Khare**, N.P. Lalla, R.S. Tiwari and O.N. Srivastava. **On The New Structural Phases in Al₆₅Cu₂₀Cr₁₅ Quasi-Crystalline Alloy** (1995) *J. of Matter. Res.* **10** 8, 1905-1912

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Presentation in Conferences

Invited Talk

1. Varsha Khare, Synthesis and Characterisation of Nanosolids/Nanocatalyst: Potential use in Green Technologies, **National Conference on Nanomaterials & Application: Present Position and Road Ahead (NAPRA-2011) (2011)**

Oral /Poster Presentations

1. **Varsha Khare**, R.S. Tiwari and O.N. Srivastava., Some Studies on Al-Deficient and Al-rich Al-Cu-Cr and Al-Cu-Cr (si) QC Alloys **National Seminar on Quasicrystalline and Related Materials Present Status and Future Prospects. Department of Physics, Banaras Hindu University (1995)**
2. **Varsha Khare**, R.S. Tiwari and O.N. Srivastava Unusual Structural Variants in Al-Cu-Cr and Al-Cu-Cr (Fe) Rapidly Solidified Quasicrystalline Alloys. **The 5th Iumrs International Conference in Asia – Iumrs-Ica-(1998)**
3. **Varsha Khare**, R.S. Tiwari and O.N. Srivastava, Stabilization of Icosahedral Phase in Si Substituted Version of Al₆₅Cu₂₀Cr₁₅ Alloy **10th International Conference on Rapidly Quenched and Metastable Materials (rq-10), Bangalore (2000)**
*RECEIVED “**YOUNG RESEARCHER AWARD**” FOR THIS PAPER
4. **Varsha Khare**, R.S. Tiwari and O.N. Srivastava Some Curious Structural and Microstructural Aspects of Quasicrystalline Phases in Al-Cu-Cr Alloys, **National seminar on crystallography, Department of Physics, University of Tirupati(2000)**
5. **Varsha Khare**, Daniela Zander,Uwe Köster. Influence of Hydrogen on the Formation of Approximation Zr-Cu-Ni-Al Quasicrystalline Alloys, **Conference on Perspectives in Physical Metallurgy and Material Science,Department of Metallurgy, Indian Institute of Science Bangalore, (2001)**
6. Uwe Köster, **Varsha Khare** und Daniela Zander **Wasserstoff induzierte Phasenumwandlungen in Zr-Cu-Ni-Al Quasikristallen (2001)**
7. **V. Khare** , R. Janlewing , D. Zander , L. Jastrow , L. Lyubenova and Uwe Köster Influence of alloying on the formation of Zr-based quasicrystals. **E-Verhandlungen Quasikristalle IV(2002)**
8. T. Apih, M. Klanjsek, **Varsha Khare**, P. Jeglic, and J. Dolinsek, Hydrogen Diffusion in Quasicrystalline ZrCuNiAl, **MRS Fall Meeting Proceedings (2003)**
9. **V. Khare**, C. Beeli and J.M.Dubois, Effect of Boron Substitution on the Formation and Stability of Decagonal Phase in Al-Cr-Fe Alloys, **MRS Fall Meeting (2003)**
10. M. Mullet, **V.Khare**, C. Ruby XPS study of Fe(II)-Fe(III) (oxy)hydroxycarbonate green rust compounds, **ECASIA'07: The 12th European Conference on Applications of Surface and Interface Analysis, Brussels, Belgium, (2007)**
11. M. Risch, **V. Khare**, A. Grundmeier, O. Sanganas, Gerencser, E. Zaharieva, M. Haumann and H. Dau, Characterization of a novel water-oxidation catalyst by X-ray absorption spectroscopy at KMC1, **BESSY Users Meeting (2008).**
12. *Marcel Risch, Franziska Ringleb, Varsha Khare, Petko Chernev, Ivelina Zaharieva and Holger Dau*, Characterisation of a water-oxidizing Co-film by XAFS, **14TH INTERNATIONAL CONFERENCE ON X-RAY ABSORPTION FINE STRUCTURE(XAFS14) Camerino, Italy (2009)**
13. Khare, V., Ruby, C., Taubert, A., Sonkaria, S., Anh S.H., **Green and Sustainable Nanotechnology: Role of Ionic Liquids**, International Symposium on Green Manufacturing and Applications (ISGMA 2011), Seoul South Korea (2011)
14. Sonkaria S., Fuentes, G., Verma, C., Narang, R., **Khare, V.**, Fratzl P and Faivre D **Preliminary characterisation of the structural and behavioural properties of the magnetotactic bacterial actin-like homolog, MamK: A potential biomimetic strategy for the in vitro alignment of lipid enclosed magnetic nanoparticles**, International Symposium on Green Manufacturing and Applications (ISGMA 2011), Seoul South Korea (2011)
15. Kim, C. S., Choi, J. O., Lee, H. T., Jiseong Lee, Park, J. I., Dong-Young Jang, **Varsha Khare**, Ahn, S. H., **Green Synthesis of Self-Assembled Graphene-like Nanoparticles by Ionic Liquid**, International Symposium on Green Manufacturing and Applications (ISGMA 2012), Korean Society of Precision Engineering, August 27-29, Jeju, Korea (2012)
16. Pham, M. Q., Yoon, H. S., Moon, J. S., **Varsha Khare** and Ahn, S. H., 2012, **Application of Ionic Liquid as Novel Lubricant in Micro Milling** , International Symposium on Green Manufacturing and Application (ISGMA 2012), Korean Society of Precision Engineering and etc., August 27-29, Jeju, Korea (2012).

17. M.Q. Pham, H.S. Yoon, J.S. Moon, V. Khare, S.H. Ahn, **윤활유로서 이온성 액체를 이용한 가공 품질의 향상 연구**, 한국정밀공학회 춘계학술대회 (2012).