Complete list of publications - Sriharitha Rowthu

IIT Gandhinagar

PEER-REVIEWED PUBLICATIONS (h-index: 3, i10 index: 2, Total Citations: 178)

1. **Sriharitha Rowthu** and Patrik Hoffmann, "Perfluoropolyether Impregnated Mesoporous Alumina Composites Overcome the Dewetting-Tribological Properties Trade-Off", *ACS Applied Materials and Interfaces* ***(IF= 8.097)***, 2018, 10, 10560 → https://pubs.acs.org/doi/abs/10.1021/acsami.8b00061, **cited 1 time.**

2. **Sriharitha Rowthu**, Fatemeh Saeidi, Kilian Wasmer, Patrik Hoffmann, Jakob Kuebler, "Flexural strength of slip cast mesoporous submicron alumina samples", *Ceramics International* ***(IF= 3.057)***, 2018, 44, 5193-5201 → https://doi.org/10.1016/j.ceramint.2017.12.125**, cited 3 times.**

3. **Sriharitha Rowthu,** Edin E. Balic, Patrik Hoffmann, "Molecular Dimensions and Surface Diffusion Assisted Mechanically Robust Slippery Perfluoropolyether Impregnated Mesoporous Alumina Interfaces", *Nanotechnology* ***(IF = 3.404)***, 2017, 28, 505605 → https://doi.org/10.1088/1361-6528/aa974a**, cited 3 times.**

4. **Sriharitha Rowthu**, K. Böhlen, P. Bowen, P. Hoffmann, "Surface 3D Micro Free Forms: Multifunctional Microstructured Mesoporous α-Al203 by In Situ Slip Casting Using Excimer Laser Ablated Polycarbonate Molds", *ACS Applied Materials and Interfaces* ***(IF= 8.097)***, 2015, 7, 24458 → https://pubs.acs.org/doi/abs/10.1021/acsami.5b04748**, cited 8 times, featured on cover page.**

5. **R. Sriharitha**, B. S. Murty, Ravi S. Kottada "Alloying, Thermal Stability and Strengthening in Spark Plasma Sintered $Al_xCoCrCuFeNi$ High Entropy Alloys", *Journal of Alloys and Compounds* ***(IF = 3.779)***, 2014, 583, 419-426 → https://doi.org/10.1016/j.jallcom.2013.08.176**, cited 72 times.**

6. **R. Sriharitha**, B. S. Murty, Ravi S. Kottada "Phase formation in mechanically alloyed $Al_xCrCuCoFeNi$ (x=0.45, 1, 2.5, 5 moles) high entropy alloys", *Intermetallics* ***(IF = 3.42)***, 2013, 32, 119-126 → https://doi.org/10.1016/j.intermet.2012.08.015**, cited 90 times *(highly cited articles).***

7. **Sriharitha Rowthu**, Pascal V. Grundler, Stefan Ritter, Britta Helmerson, Lena Oliver, "Oxidation and hydrogen pickup properties of zircaloy cladding upon deposition of platinum nanoparticles in boiling water reactor environment", proceedings of *TOPFUEL*, *Sep 29-Oct 4*, 2018, Prague, Czech Republic, paper A0138, https://www.euronuclear.org/events/topfuel/topfuel2018/fullpapers/TopFuel2018-A0138-fullpaper.pdf.

8. T.L. Martin, A.D. Warren, D. Kumar, A. Siberry, R. Springell, R. Holmes, R. Clark, L. Platts, R. Burrows, C. Harrington, M. Gorley, E. Surrey, **S. Rowthu**, P. Grundler and S. Ritter, "Insights into prospective fusion reactor cooling systems from fission reactor cooling circuits", Proceedings of the 19th International Conference on Environmental Degradation of Materials in Nuclear Power Systems-Water Reactors, **2019**, peer-reviewed, *in-press.*

In review

9. Pascal V. Grundler, Stefan Ritter, **Sriharitha Rowthu**, Hans-Peter Seifert, "Assessment of the SCC mitigation capabilities of the Noble metal chemical application technology in a simulated BWR environment", Proceedings of the 19th International Conference on Environmental Degradation of Materials in Nuclear Power Systems-Water Reactors, 2019, *under review.*

In preparation

10. Pascal V. Grundler, **Sriharitha Rowthu**, Stefan Ritter, "Influence of laminar, turbulent and mixed regimes on the deposition of Pt nanocatalysts in high temperature water", *to be submitted by Aug end 2019.*

11. **Sriharitha Rowthu**, Pascal V. Grundler, and Stefan Ritter, "Pt nanocatalysts can enhance or alleviate the corrosion rate and hydrogen chemisorption in Zircaloy-2", *to be submitted by August end 2019.*

CONFERENCE PROCEEDINGS FULL PAPERS

12. **Sriharitha Rowthu**, Pascal V. Grundler, Stefan Ritter, "Non-destructive ways to characterize local and spatial distributions of platinum nanoparticles on boiling water reactor materials", *proceedings of 21st International Conference on Water Chemistry in Nuclear Reactor Systems conference*, Sep 9-14, 2018, San Francisco, USA, *accepted, in press.*

13. Pascal V. Grundler, **Sriharitha Rowthu**, Stefan Ritter, "Influence of fluid flow on platinum nanoparticles transport and deposition under simulated boiling water reactor conditions", *proceedings of 21st International Conference on Water Chemistry in Nuclear Reactor Systems conference*, Sep 9-14, 2018, San Francisco, USA, *accepted, in press.*

BOOK CHAPTER

1. **Sriharitha Rowthu** and Patrik Hoffmann, "Surface micro- and nanotexturing techniques for antibacterial fouling applications", (chapter 3) in Functional Nanostructured Interfaces for Environmental and Biomedical Applications. Book Editors: Dr. Dinca Valentina & Dr. Mirela Petruta Suchea, Series Editor: Prof. Ashutosh Tiwari, *Elsevier publishers*, **invited** chapter, **2019,** peer-reviewed, *ISBN:* ***9780128144015***.

CONFERENCE PRESENTATIONS (11 ORAL & 15 POSTER)

1. **Sriharitha Rowthu** and Patrik Hoffmann, "Self-replenishing mechanisms in liquid impregnated mesoporous alumina", Heraeus seminar on slippery surfaces, April 10-12, 2019, Germany, **poster** presentation, ***self-sponsored*** conference.

2. **Sriharitha Rowthu** and Patrik Hoffmann, "Extremely mechanically robust self-healable slippery surfaces fabricated from liquid impregnated untextured porous alumina", ITN school on slippery surfaces, Max Planck, Germany, Nov 19-20, 2018: **poster** presentation.

3. **Sriharitha Rowthu**, Pascal V. Grundler, Stefan Ritter, Britta Helmersson, Lena Oliver, "Oxidation and hydrogen pickup properties of Zircaloy cladding upon deposition of platinum nanoparticles in boiling water reactor environment", Prague Czech Republic, Sep 30-Oct 04, 2018: **oral** presentation.

4. **Sriharitha Rowthu**, Pascal V. Grundler, Stefan Ritter, "Non-destructive ways to characterize local and spatial distribution of platinum nanoparticles on boiling water reactor materials", 21st International Conference on Water Chemistry in Nuclear Reactor Systems, San Francisco, USA, Sep 9-14, 2018: **poster** presentation.

5. Pascal V. Grundler, **Sriharitha Rowthu**, Stefan Ritter, "Influence of Fluid Flow on Platinum Nanoparticles Transport and Deposition under Simulated Boiling Water Reactor Conditions", 21st International Conference on Water Chemistry in Nuclear Reactor Systems, San Francisco, USA, Sep 9-14, 2018: **oral** presentation.

6. **Sriharitha Rowthu**, Pascal V. Grundler, Lyubomira Veleva, Stefan Ritter, "Pt deposition on stainless steel in laminar, mixed and turbulent high-temperature water flow regimes using customized rotating disk experiments", EUROCORR, Prague, Czech Republic, Sep 3-7, 2017: **poster** presentation.

7. **Sriharitha Rowthu**, Lyubomira Veleva, Amuthan Ramar, Pascal V. Grundler, Stefan Ritter, "High-resolution electron microscopy analyses of Pt nanoparticles deposited on stainless steel in simulated boiling water reactor environment", *Microscopy conference*, Lausanne, Switzerland, Aug 21-25, 2017: **poster** presentation.

8. **Sriharitha Rowthu**, Edin E. Balic, Patrik Hoffmann, "Wear-resistant omniphobicity in liquid impregnated mesoporous alumina composites", *Swiss Nano convention*, Switzerland, June 30-July 1, 2016: **poster** presentation.

9. **S. Rowthu**, E. Balic, P. Hoffmann, "Self-healing, mechanically durable liquid impregnated omniphobic alumina composites", *SAOG (Swiss Working Group for Surface and Interface Science)*, Switzerland, 2016: **poster** presentation.

10. **R. Sriharitha**, K. Böhlen, P. Hoffmann, "Dual scale micro-nano surface features fabricated on mesoporous alumina samples through replication technique using ceramic colloidal suspension", *E-MRS*, Warsaw, Poland, Sep 15-18, 2015: **oral** presentation.

11. **R. Sriharitha**, E. E. Balic, P. Hoffmann, "Study of wetting and tribological properties of ceramic matrix composites through liquid infusion approach", *MaP award*, ETH Zurich, Switzerland, 2015: **poster** presentation & **image** contest.

12. **Sriharitha Rowthu**, Edin Balic, Patrik Hoffmann, "Multifunctional Mesoporous alpha Alumina: Anti-Liquid Sticking, Ultra-Low Friction and Wear-Resistant Material", *EDMX Research Day*, EPFL, Lausanne, Switzerland, Nov 23, 2015: **oral** presentation.

13. **Sriharitha Rowthu**, Edin E. Balic, Patrik Hoffmann, "Anti-liquid sticking, ultra-low friction and wear-resistant material", *Empa Phd symposium*, 2015, Dübendorf, Switzerland: **oral** presentation.

14. **R. Sriharitha**, E. E. Balic, P. Hoffmann, "Wetting and tribological studies of mesoporous α-Al2O3 composite", *CCMX annual meeting*, 2015, Bern, Switzerland: **poster** presentation.
15. **Sriharitha Rowthu**, Edin. E. Balic, Karl Böhlen, Patrik Hoffmann, "Preparation of hierarchically structured alumina", *Empa Phd symposium*, 2014, Dübendorf, Switzerland: **oral** presentation.
16. **R. Sriharitha,** E. E. Balic, K. Böhlen, E. Siringil, P. Hoffmann, "Preparation of microstructured mesoporous alumina", *Micro & Nano Engineering (MNE)*, 2014, Lausanne, Switzerland: **oral** presentation.
17. **R. Sriharitha**, E. E. Balic, P. Hoffmann, "Influence of Porosity/Density and Lubrication on Tribological Response of Mesoporous α-Al2O3", *Swiss-Japanese Tribology Meeting*, 2014, Zurich, Switzerland: **oral** presentation.
18. **R. Sriharitha**, E. E. Balic, P. Hoffmann, "Influence of Porosity and Lubrication on Tribological Response of Mesoporous α–Al_2O_3", *Friction, Wear and Wear Protection*, May 6-8, 2014, Karlsruhe, Germany: **oral** presentation.
19. **R. Sriharitha**, E. Balic, P. Hoffmann, "Liquid- Repellent Wear-Resistant Material", *CCMX annual meeting*, 2013, 2014, Bern, Switzerland: **poster** presentations.
21. **R. Sriharitha,** E. E. Balic, P. Hoffmann**, "**Liquid-Repellent Wear-Resistant Material**"** *EDMX Research Day*, 2013, EPFL, Lausanne, Switzerland: **poster** presentation**.**
22. **R. Sriharitha**, E. E. Balic, P. Hoffmann, "Wetting and Tribological Characteristics of Mesoporous Alumina", *Empa Phd symposium*, 2013, Dübendorf, Switzerland: **oral** presentation.
23. **R. Sriharitha**, E. E. Balic, P. Hoffmann, "Liquid-Repellent Wear-Resistant Coatings", *Empa Phd symposium*, Dübendorf, Switzerland, 2012: **poster** presentation.
24. **R. Sriharitha**, E. Balic, P. Hoffmann, "Biomimetic Liquid-Repellent and Wear-Resistant Material", *Junior Euromat*, 2012, Lausanne, Switzerland: **poster** and **oral** presentations.
25. **R. Sriharitha**, E. Balic, P. Hoffmann, "Wetting, Tribological and Mechanical Evaluations of Nanoporous Alumina", *CCMX annual meetin*g, 2012, Bern, Switzerland: **poster** presentation.
26. **R. Sriharitha**, Ravi S. Kottada, B. S. Murty, "Phase Formation and Mechanical Properties of Al_xFeNiCrCuCo (x=0.45, 1, 2.5, 5 moles) High Entropy Alloys Synthesized by Mechanical Alloying", *NMD-ATM,* 2010, India): **poster** presentation.