COST ACTION GREENERING – DATA COLLECTION

First name, Family Name: Vjaceslavs Lapkovskis
Type (Academic or Industrial): Academic
Country: Latvia (Republic of Latvia)
Leadership position in the COST: MC Member on CA18224, WG vice-leader on CA 15102
Working Group in which you are involved: WG4 and WG1
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Laboratory/Company: Scientific Laboratory of Powder Materials & Institute of Aeronautics, Riga Technical University (Riga, Latvia)

Laboratory/Company info:
Scientific Laboratory of Powder Materials is a division of Riga Technical University (RTU), Civil Engineering dept., which operates in close collaboration with other laboratories of the faculty and adjacent RTU departments. Personnel: 5-8 researchers and leading researchers, 5 PhD students, 2 postdoctoral fellows.

Link to the home page of the Laboratory/Company:
https://www.researchgate.net/lab/Scientific-Laboratory-of-Powder-Materials-Head-Viktors-Mironovs-Viktors-Mironovs

Fields of expertise:
- Bio-based composite materials,
- Reuse, recycling and conversion of secondary materials into value added products,
- Recycling and substitution of critical raw materials,
- Environmental applications of powder, granular and composite materials,
- Circular economy and biomass materials applications.
- Process modelling in FEA software.

5 Main publications or patents:
- V. Lapkovskis, V. Mironovs, K. Irtiseva, D. Goljandin, and A. Shishkin, 'Investigation of Devulcanised Crumb Rubber Milling and Deagglomeration in Disintegrator System', , Key Engineering Materials, vol. 800, pp. 216–220, 2019.
- V. Lapkovskis, V. Mironovs, K. Irtiseva, and D. Goljandin, 'Study of Devulcanised Crumb Rubber-Peat Bio-Based Composite for Environmental Applications', Key Engineering Materials, vol. 799, pp. 148–152, 2019.
- A. H. Tkaczyk, A. Bartl, A. Amato, V. Lapkovskis, and M. Petranikova, "Sustainability evaluation of essential critical raw materials: cobalt, niobium, tungsten and rare earth elements," J. Phys. D. Appl. Phys., vol. 51, pp. 1–26, 2018.
- V. Mironovs, O. Ozernovs, V. Lapkovskis, and D. Golyandin, "Production of Crumb Ruber — Iron Powder Mixture for perspective synthesis of Carbon-Iron powder sorbent," Agron. Res., vol. 14, no. S1, pp. 1063–1068, 2016.

- V. Mironovs, V. Lapkovskis, A. Šiškins, J. Baroniņš. Method and device for mixing of powder materials (in Latvian: Pulvermateriālu sajaukšanas paņēmiens un iekārta tā īstenošanai). LR patents LV 14383 B, Int. Cl. B22F9/02. 20.12.2011.

Collaborations:
Zwickau University of Applied Sciences, TU Wien, Chalmers university, Tartu University of Life Sciences, Tallinn Unversity of Technology, University of Cagliari, Marche Polytechnic University, University of Chemistry and Technology in Prague.

Facilities:
- Cavitational disperser rig (mixing and desintegration of materials),
- Shock-wave desintegrator ,
- Equipment and tools for electromagnetic processing of materials,
- Pulse power generators and measurement tools.
- Electromagnetic field measurements (electromagnetic smog).
- Powder materials research equipment (based on digital microscope (Keyence VHX-2000)).
- Etc.