

Publications SCCER-Mobility

Capacity Area A1 - E-Mobility				
Title, Author(s)	Name and location of publishing company	Title of journal, volume, issue number	Page number	Year of publication
Comparison of High Power Non-Isolated Multilevel DC-DC Converters for Medium-Voltage Battery Storage Applications: Stojadinovic M., Biela J.	Conference paper	17th Conference on Power Electronics and Applications, EPE'15-ECCE Europe, 8-10 September 2015	in print	2015
Prüfstand zur thermischen Charakterisierung von Batteriezellen und Validierung geplanter Kühlkonzepten: Rizzo G., Christen R., Stöck M.	Conference paper	23. Design & Elektronik-Entwickler-forum – Batterien & Ladekonzepte. WEKA Fachmedien, München		2016
Capacity Area A2 - Chemical Energy Converters				
Title, Author(s)	Name and location of publishing company	Title of journal, volume, issue number	Page number	Year of publication
Local Characterization of PEFCs by Differential Cells: Systematic Variations of Current and Asymmetric Relative Humidity: Oberholzer P., Boillat P.	The Electrochemical Society, USA	Journal of the Electrochemical Society, Volume 161, Issue 3	F139	2014
Dual spectrum neutron radiography: Identification of phase transitions between frozen and liquid water: Biesdorf J., Oberholzer P., Bernauer F., Kaestner A., Vontobel P., Lehmann E.H., Schmidt T.J., Boillat P.	American Physical Society, USA	Physical Review Letters, Volume 112, Issue 24	248301 (art. no)	2014
Implications of polymer electrolyte fuel cell exposure to synchrotron radiation on gas diffusion layer water distribution: Eller J., Roth J., Marone F., Stampanoni M., Wokaun A., Büchi F.N.	Elsevier B.V., Netherlands	Journal of Power Sources, Volume 245	796	2014
Polymer electrolyte fuel cell performance degradation at different synchrotron beam intensities: Eller J., Büchi F.	International Union of Crystallography, England	Journal of Synchrotron Radiation, Volume 21, Part 1	82	2014
Polymer Electrolyte Fuel Cells, Mass Transport: Büchi F., Boillat P.	Springer Verlag, Germany	Encyclopedia of Applied Electrochemistry	1661	2014

Title, Author(s)	Name and location of publishing company	Title of journal, volume, issue number	Page number	Year of publication
Thermal multicomponent lattice Boltzmann model for catalytic reactive flows: Kang J., Prasianakis N., Mantzaras I.	American Physical Society, USA	Physical Review E, Vol. 89	063310 (art. no)	2014
An analytical and numerical investigation of hetero-/homogeneous combustion with deficient reactants having larger than unity Lewis numbers: Zheng X., Mantzaras I.	Elsevier, USA	Combustion and Flame, Vol. 161	1911-1922	2014
Regionalized LCA-based optimization of building energy supply: method and case study for a Swiss municipality": Saner D., Vadenbo C., Steubing B., Hellweg S.		Environmental Science and Technology	in press	2014

Capacity Area A3 – Minimization of Energy Demand

Title, Author(s)	Name and location of publishing company	Title of journal, volume, issue number	Page number	Year of publication
Direct thermoplastic melt impregnation of carbon fibre fabrics with an injection moulding process: Studer J., Dransfeld C., Fiedler B.	conference paper	JNC 19 (Journées Nationales sur les Composites) – Lyon – 29./30. June and 1 st July 2015		2015
Thermoplastic CFRP recycling with electrical fragmentation : from cradle to cradle: Roux M., Eguémann N., Dransfeld C., Thiébaud F., Perreux D.	SAGE	Journal of Thermoplastic Composite Materials DOI:10.1177/0892705715599431	published online	2015
Composites reinforced via mechanical interlocking of surface-roughened microplatelets within ductile and brittle matrices: Libanori R., Carneli D., Rothfuchs N., Binelli M.R., Zanini M., Nicoleau L., Feichtenschlager B., Albrecht G., Studart A.R.	ISSN: 1748-3190	Bioinspiration & Biomimetics, volume 11, issue 3	036004	2015
Design and fabrication of microstructured composites using mechanical and magnetic stimuli: Libanori R., Erb R and Studart A. R.	conference paper	Composites at Lake Louise, Lake Louise, Canada, November, 8th-12 th , 2015		2015
Manufacturing of Bicomponent Fibers for Thermoplastic Composites: A Feasibility Study: Schneeberger C., Wong J.C.H., Ermanni P.	conference paper	17 th European Conference on Composite Materials (ECCM17), Munich, Germany, 26-30 th June 2016		2016
Hierarchically roughened microplatelets enhance the strength and ductility of nacre-inspired composites : Niebel T. P., Carnelli D., Binelli M. R., Libanori R. and Studart A. R.	ISSN: 1751-6161 URL DOI: http://dx.doi.org/10.1016/j.jmbbm.2016.02.008	Journal of the Mechanical Behavior of Biomedical Materials, Volume: 60	367-377	2016
Composites Reinforced via Mechanical Interlocking of Surface-Roughened Microplatelets: Libanori R., Carnelli D., Nicoleau L., Feichtenschlager B., Albrecht G., Studart A. R.	conference paper	MRS Spring 2016, Phoenix, AZ, March, 28th-April, 1		2016

Title, Author(s)	Name and location of publishing company	Title of journal, volume, issue number	Page number	Year of publication
Fast-curing epoxy polymers with silica nanoparticles: properties and rheo-kinetic modelling: Keller A., Masania K., Taylor A. C. and Dransfeld C.		Journal of Materials Science, vol. 51, issue 1 (2016)	236-251	2016
An analytical model for B-stage joining and co-curing of carbon fibre epoxy composites: Studer J., Dransfeld C., and Masania K.		Composites Part A: Applied Science and Manufacturing 87 (2016)	282-289	2016

Capacity Area B1 – Integration and Optimization

Title, Author(s)	Name and location of publishing company	Title of journal, volume, issue number	Page number	Year of publication
Measuring similarity of mobile phone user trajectories - a Spatio-temporal Edit Distance method: Yuan Y., Raubal M.	Taylor and Francis	International Journal of Geographical Information Science 28 (3)	496-520	2014
Determining Usage Differences Between Bikes and E-Bikes: Allemann D.	Wichmann, Berlin	Geoinformationssysteme 2014 – Beiträge zur 1. Münchner GI-Runde	8-15	2014
Towards a simulation-based framework for evaluating energy-efficient solutions in train operation: De Martinis V., Weidmann U., Gallo M. (conference paper)	WITpress, Southampton UK	WIT Transactions on the Built Environment, vol. 135	721-732	2014
A Novel Interior Permanent Synchronous Motor for a High End Ebike Drive Chain: Haerri V., Lindegger M., Neumaier M.	Competence Center IIEE (Integral, Intelligent & Efficient Energy Systems)	978-1-4673-7512-2/15		2015
The Energy-Pack APU-Replacement for Catenary Free Operation of Overhead Wired Buses: Haerri V., Neumaier M., Schwartz P.	Competence Center IIEE (Integral, Intelligent & Efficient Energy Systems)	978-1-4673-7512-2/15		2015

Capacity Area B2 – Assessment

Title, Author(s)	Name and location of publishing company	Title of journal, volume, issue number	Page number	Year of publication
Life cycle inventories of electricity generation and power supply in version 3 of the ecoinvent database—part II: electricity markets: Treyer K., Bauer C.	Springer, Germany	International Journal of LCA	publ. online	2014
Transformation in transportation? Hoppe M., Christ A., Castro A., Winter M., Seppänen T.M.	Springer	Eur J Futures Res (2014) 2:45 DOI 10.1007/s40309-014-0045-6	45-58	2014

The environmental performance of current and future passenger vehicles: Life Cycle Assessment based on a novel scenario analysis framework: Bauer C., Hofer J., Althaus H.-J., Del Duce A., Simons A.	Elsevier	Applied Energy, doi:10.1016/j.apenergy.2015.01.019	published online	2015
A life-cycle perspective on automotive fuel cells: Simons A., Bauer C.	Elsevier	Applied Energy, doi:10.1016/j.apenergy.2015.02.049	published online	2015
Wild Cards in Transport: Hauptmann A., Hoppe M., Raban Y.	Springer	Eur J Futures Res DOI 10.1007/s40309-015-0066-9	published online	2015
Interplay between electricity and transport sectors – Integrating the Swiss car fleet and electricity system: Kannan, R., Hirschberg S.	Transportation Research Part A: Policy and Practice	Vol. 94, DOI:10.1016/j.tra.2016.10.007	514-531	2016