

# LISTES DES TRAVAUX ET PUBLICATIONS

## Publications dans des revues internationales à comité de lecture

- 29 – Alice Guille des Buttes, Bruno Jeanneret, Alan Kéromnès, Luis Le Moyne, Serge Pélissier  
*Energy management strategy to reduce pollutant emissions during the catalyst light-off of parallel hybrid vehicles*  
Applied Energy, Vol 266, 15 May 2020
- 28 - Eduardo Redondo-Iglesias, Pascal Venet, Serge Pelissier  
*Modelling Lithium-Ion Battery Ageing in Electric Vehicle Applications—Calendar and Cycling Ageing Combination Effects*  
Batteries, Vol. 6, art. 14, 2020
- 27 - Adnane Houbbadi, Rochdi Trigui, Serge Pelissier, Eduardo Redondo-Iglesias and Tanguy Bouton  
*Optimal Scheduling to Manage an Electric Bus Fleet Overnight Charging*  
Energies, 12 (14), 2727, 17p, 2019
- 26 - Adnane Houbbadi, Rochdi Trigui, Serge Pelissier and Eduardo Redondo-Iglesias  
*A quadratic programming based optimisation to manage electric bus fleet charging*  
Int. J. Electric and Hybrid Vehicles, Vol. 11, n° 4, 289-307, 2019
- 25 – Honorat Quinard, Eduardo Redondo-Iglesias, Serge Pelissier, Pascal Venet  
*Fast Electrical Characterizations of High-Energy Second Life Lithium-Ion Batteries for Embedded and Stationary Applications*  
Batteries, 5, no. 1: 33, 18p, 2019
- 24 - Eduardo Redondo-Iglesias, Pascal Venet, Serge Pelissier  
*Efficiency Degradation Model of Lithium-ion Batteries for Electric Vehicles*  
IEEE Transactions on Industrial Applications, 55 (2), 1932 – 1940, 2019
- 23 - Eduardo Redondo-Iglesias, Pascal Venet, Serge Pélissier  
*Calendar and cycling ageing combination of batteries in electric vehicles,*  
Microelectronics Reliability, Elsevier, 88, 1212–1215, 2018.
- 22 - Eduardo Redondo-Iglesias, Pascal Venet, Serge Pélissier  
*Global Model for Self-discharge and Capacity Fade in Lithium-ion Batteries Based on the Generalized Eyring Relationship*  
IEEE Transactions on Vehicular Technology, 67 (1), pp. 104-113, 2018.
- 21 - Eduardo Redondo-Iglesias, Pascal Venet, Serge Pélissier  
*Eyring acceleration model for predicting calendar ageing of lithium-ion batteries*  
Journal of Energy Storage, 13, pp. 176-183, 2017.
- 20 - An Li, Serge Pelissier, Pascal Venet, Philippe Gyan  
*Fast Characterization Method for Modeling Battery Relaxation Voltage*  
Batteries, Vol. 2, n° 2, 15p, 2016.
- 19 - Aurélien Lievre, Ali Sari, Pascal Venet, Alaa Hijazi, Mathilde Ouattara-Brigaudet, Serge Pélissier  
*Practical Online Estimation of Lithium-Ion Batteries Apparent Series Resistance for Mild Hybrid Vehicles*  
IEEE Transactions on Vehicular Technology, 65 (6), pp. 4505-4511, 2016.
- 18 - François Savoye, Pascal Venet, Serge Pélissier, Michael Millet, Jens Groot  
*Impact of periodic current pulses on Li-ion batteries lifetime in vehicular application*  
International Journal of Electric and Hybrid Vehicle, Vol. 7, n° 4, pp. 323-341, 2015.
- 17 - Arnaud Devie, Emmanuel Vinot, Serge Pélissier, Pascal Venet  
*Real-world battery duty profile of a neighbourhood electric vehicle*  
Transportation Research Part C, 25, pp.122–133, 2012.
- 16 - M. Kassem, J. Bernard, R. Revel, S. Pélissier, F. Duclaud, C. Delacourt

*Calendar aging of a graphite/LiFePO<sub>4</sub> cell*  
Journal of Power Sources, 208, 296–305, 2012.

15 - M. Montaru, S. Pélissier  
*Frequency and Temporal Identification of a Li-ion Polymer Battery Model Using Fractional Impedance*  
Oil & Gas Science and Technology, vol 65, n° 1, pp 67-78, 2010.

14 - E. Gamet, Y. Jourlin, S. Pélissier, S. Reynaud, C. Veillas, J.C. Pommier, O.Parriaux.  
*Flying phase mask for the printing of long stitchingless gratings*  
Microelectronic Engineering, vol 83, n° 4-9, pp. 734-737, 2006.

13 - D. Blanc, S. Pélissier, P.Y. Jurine, O. Soppera, C.Croutxe-Barghorn, C. Carré  
*Photo induced swelling of hybrid sol-gel thin films : application to surface micro-patterning*  
Journal of Sol-Gel Science and Technology, 27, pp. 215-220, 2003.

12 - D. Blanc, S. Pélissier et J.M Bergheau  
*A solid mechanics approach to surface relief formation in photosensitive hybrid sol-gel*  
Applied Physics A: Materials Science and Processing, 75, pp. 1-3, 2002.

11 - D. Blanc et S. Pélissier  
*Fabrication of sub-micron period diffraction gratings in self-processing sol-gel glasses.*  
Thin Solid Films, Vol. 384, pp.251-253, 2001.

10 - S. Pélissier, G. Pandraud, A. Mure-Ravaud, A.V. Tishchenko et B. Biasse  
*Fabrication of buried corrugated waveguides by wafer direct bonding.*  
Journal of Lightwave Technology, Vol. 18, n°4, pp. 540-545, 2000.

9 - S. Pélissier, D. Blanc, M.P. Andrews, S.I. Najafi, A.V. Tishchenko et O. Parriaux  
*Single-step UV recording of sinusoidal surface gratings in hybrid sol-gel glasses.*  
Applied Optics, Vol. 38, n°32, pp. 6744-48, 1999.

8 - D. Blanc, S. Pélissier, K. Saravanamuttu, S.I. Najafi et M.P. Andrews  
*Self-processing of surface relief gratings in photosensitive hybrid sol-gel glasses.*  
Advanced Materials, Vol. 11, n°18, pp. 1508-11, 1999.

7 - S. Pélissier, F. Pigeon, B. Biasse, M. Zussy, G. Pandraud, and A. Mure- Ravaud  
*A new technique to produce buried channel waveguides in glass.*  
Optical Engineering, Vol. 37, n°4, pp. 1111-14, 1998.

6 - F. Pigeon, S. Pélissier, A. Mure-Ravaud  
*Procédé d'adhérence moléculaire pour l'optique intégrée.*  
100 faits marquants du département des sciences pour l'ingénieur 1997, Edition du CNRS, 1997.

5 - A. Boukenter, Y. Ouerdane, A. Mure-Ravaud, G. Pandraud, S. Pélissier, F. Pigeon and B. Biasse  
*Direct bonding silica based wafers characterization by defects photoluminescence spectroscopy.*  
Journal of non-crystalline solids, Vol. 216, pp. 95-98, 1997.

4 -S. Pélissier, A. Mure-Ravaud, F. Pigeon, B. Biasse  
*Procédé d'adhérence moléculaire (WDB) pour la microoptique intégrée : application à la réalisation de guides d'onde enterrés sur verre.* - Entropie n° 192-193, pp. 58-61, 1995.

3 - F. Pigeon, S. Pélissier, A. Mure-Ravaud, H. Gagnaire and C. Veillas  
*A polarimetric optical fibre sensor immune to temperature variations for detecting vibrations.*  
Sensors VI Technology, Systems and Applications. Institute of Physics Publishing , ISBN 07503-0316-6, pp. 287-90, 1994.

2 - F. Pigeon, S. Pélissier, A. Mure-Ravaud, H. Gagnaire, S.I. Hosain, C. Veillas  
*A vibration sensor, using telecommunication grade monomode fibre, immune to temperature variations.*  
Journal de Physique III, T3, n° 9, pp. 1835-38, 1993.

1- F. Pigeon, S. Pélissier, H. Gagnaire, A. Mure-Ravaud, C. Veillas  
*Optical fibre Young's modulus measurement using an optical method.*  
Electronics Letters, Vol. 28, pp. 1334-35, 1992.

### **Ouvrages scientifiques ou chapitres**

2 - Serge Pélissier, Ali Sari, Pascal Venet  
*Batteries électriques pour applications portables et embarquées – Technologies*  
Techniques de l'Ingénieur, collection Électronique - Photonique – Électronique, E2141, 20 pages, 2018.

1 - Serge Pélissier, Ali Sari, Pascal Venet  
*Batteries électriques pour applications portables et embarquées – Fondamentaux*  
Techniques de l'Ingénieur, collection Électronique - Photonique – Électronique, E2140, 21 pages, 2018.

### **Autres publications (revues nationales, professionnelles ou sans comité de lecture)**

5 - Mohamed Ben-Marzouk, Guy Clerc, Serge Pelissier, Ali Sari, Pascal Venet.  
Détermination des modes de conduite des véhicules électriques dans des conditions réelles par des méthodes de classification.  
La Revue 3 E. I. (SEE) n°96, pp 49-54, Avril 2019

4 - Serge Pélissier  
Voitures électriques et recherche  
Revue TEC (ATEC-ITS), n°238, pp 24-25, juillet 2018

3 - Frédéric Héran, Serge Pélissier  
*La voiture électrique : espoir d'une mobilité durable ou soubresaut d'une « automobilité » dominante ?*  
Revue TEC (ATEC-ITS), n°220, pp 56-60, octobre-décembre 2013

2 - S. Pélissier,  
*Introduction au vieillissement des batteries Lithium-ion et aux protocoles expérimentaux de test de durée de vie*  
La Revue 3EI (SEE) n° 68, pp. 17-22, Avril 2012

1 - S. Pélissier, R. Trigui  
*Paroles de chercheurs : Feu vert pour les voitures propres*  
Editions INRETS, février 2010

### **Conférences internationales**

35 - Adnane Houbbadi, Eduardo Redondo-Iglesias, Rochdi Trigui, Serge Pelissier, Tanguy Bouton  
*Optimal charging strategy to minimize electricity cost and prolong battery life of electric bus fleet*  
IEEE Vehicle Power and Propulsion Conference (VPPC), 2019, Hanoï, Vietnam

34 - Eduardo Redondo-Iglesias, Emmanuel Vinot, Pascal Venet, Serge Pelissier  
*Electric vehicle range and battery lifetime: a trade-off*  
EVS 2019, Lyon, France

33 - Adnane Houbbadi, Serge Pelissier, Rochdi Trigui, Eduardo Redondo-Iglesias, Tanguy Bouton  
*Overview of Electric Buses deployment and its challenges related to the charging – the case study of TRANSDEV*  
EVS 2019, Lyon, France

32 - Eduardo Redondo-Iglesias, Pascal Venet, Serge Pelissier  
*Calendar and cycling ageing combination of batteries in electric vehicles,*  
29th European Symposium on Reliability of Electron Devices, Failure Physics and Analysis (ESREF), 2018, Aalborg, Danemark

31 - Alice Guille des Buttes, Bruno Jeanneret, Alan Keromnes, Serge Pelissier, Luis Le Moyne  
*Optimizing Fuel Consumption and Pollutant Emissions of a Spark Ignition Engine for Eco-driving Applications*  
IEEE Vehicle Power and Propulsion Conference (VPPC), 2018, Chicago, USA

30 - Felix-A. LeBel, Joao Pedro Trovao, Loic Boulon, Ali Sari, Serge Pelissier, Pascal Venet  
*Generating Lithium-Ion Cell Thermodynamic Efficiency Maps*  
IEEE Vehicle Power and Propulsion Conference (VPPC), 2018, Chicago, USA

- 29 - Loïc Vichard, Simon Morando, Alexandre Ravey, Fabien Harel, Pascal Venet, Daniel Hissel  
*Battery modeling using real driving cycle and Big-Bang Big-Crunch algorithm.*  
IEEE Transportation Electrification Conference (ITEC), 2018, Long Beach, USA
- 28 - Mohamed Ben-Marzouk, Guy Clerc, Serge Pelissier, Ali Sari, Pascal Venet  
*Determination of the electric vehicles driving modes in real life conditions by classification methods*  
IEEE International Conference on Industrial Technology (ICIT), 2018, Lyon, France
- 27 - Loïc Vichar, Alexandre Ravey, Simon Morando, Fabien Harel, Pascal Venet, Serge Pelissier, Daniel Hissel  
*Battery aging study using field use data*  
IEEE Vehicle Power and Propulsion Conference (VPPC), 2017, Belfort, France
- 26 - Adnane Houbbadi, Rochdi Trigui, Serge Pelissier, Eduardo Redondo Iglesias, Tanguy Bouton  
*Multi-objective optimisation of the management of electric bus fleet charging*  
IEEE Vehicle Power and Propulsion Conference (VPPC), 2017 Belfort, France
- 25 - Eduardo Redondo-Iglesias, Pascal Venet, Serge Pelissier  
*Impact of battery ageing on e-mobility energy efficiency*  
12th International Conference on Ecological Vehicles and Renewable Energies (EVER), 2017, Monaco
- 24 - Eduardo Redondo-Iglesias, Pascal Venet, Serge Pelissier  
*Measuring Reversible and Irreversible Capacity Losses on Lithium-ion Batteries*  
IEEE Vehicle Power and Propulsion Conference (VPPC), 2016, Hangzhou, China
- 23 - Mohamed Ben-Marzouk, Agnès Chaumond, Eduardo Redondo-Iglesias, Maxime Montaru, Serge Pélissier  
*Experimental protocols and first results of calendar and/or cycling aging study of lithium-ion batteries – the MOBICUS project*  
EVS 2016, Montréal, Canada
- 22 - Eduardo Redondo-Iglesias, Pascal Venet, Serge Pélissier  
*Influence of the non-conservation of SoC value during calendar ageing tests on modelling the capacity loss of batteries*  
10th International Conference on Ecological Vehicles and Renewable Energies (EVER), 2015, Monaco
- 21 - Aurélien Lievre, Serge Pélissier, Ali Sari, Pascal Venet, Alaa Hijazi  
*Luenberger Observer for SoC Determination of Lithium Ion Cells in Mild Hybrid Vehicles, compared to a Kalman Filter*  
10th International Conference on Ecological Vehicles and Renewable Energies (EVER), 2015, Monaco
- 20 – R. Derollepot, C. WEISS, Z. Kolli, T. Franke, R. Trigui, B. Chlond, J. Armoogum, J. Stark, R. Klementschtz, M. Baumann, S. Pelissier  
*Optimizing components size of an extended range electric vehicle according to the use specifications*  
TRA (Transport Research Arena) Conference, 2014, Paris, France
- 19 - P. Kreczanik, B. Jeanneret, S. Pélissier  
*Construction of database on real world uses of electric vehicles – a French case*  
IEEE Vehicle Power and Propulsion Conference (VPPC), 2014 Coimbra, Portugal
- 18 - A. Delaille, S. Grolleau, F. Duclaud, J. Bernard, R. Revel, S. Pélissier, E. Redondo-Iglesias, J.M. Vinassa, A. Eddahech, C. Forgez, D. Porcellato, P. Gyan, S. Bourlot, M. Ouattara-Brigaudet  
*SIMCAL Project: calendar aging results obtained on a panel of 6 commercial Li-ion cells*  
224th ECS Meeting, 2013, San Francisco, USA
- 17 - Arnaud Devie, Pascal Venet, Serge Pélissier and Rochdi Trigui  
*Battery duty profile of a heavy-duty trolleybus*  
IEEE Vehicle Power and Propulsion Conference (VPPC), 2012, Seoul, Korea
- 16 - Mohammad Kassem, J. Bernard, R. Revel, S. Pélissier, F. Duclaud, and C. Delacourt  
*Calendar aging and post mortem analysis of Graphite/LiFePO<sub>4</sub> cell*  
EMR 2012 (Energy and Materials Research) – 2012, Malaga, Spain
- 15 - S. Pélissier

*Batteries for Electric and Hybrid Vehicles: State of the Art and Perspectives (keynotes)*

1<sup>ère</sup> Conférence REVET Renewable Energy and Vehicular Technology, Mars 2012, Hammamet Tunisie

14 - Weiping Liu, C. Delacourt, C. Forgez, S. Pélissier

*Study of graphite/NCA Li-ion cell degradation during accelerated aging tests — Data analysis of the SIMSTOCK project*

IEEE Vehicle Power and Propulsion Conference (VPPC), 2011, Chicago, USA

13 - Claire Wajeman, Christian Buty, Serge Pelissier.

*Modelling and ICT-based Animation: the Case of Hysteresis, at University*

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12 - S. Pélissier

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IEEE Vehicle Power and Propulsion Conference (VPPC), 2010, Lille, France

11 - A. Devie, M. Montaru, S. Pélissier, P. Venet

*Classification of duty pulses affecting energy storage systems in vehicular applications*

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*Defects laser spectroscopy characterization of assembled silica wafers by direct bonding.*

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5 - S. Pélissier, G. Pandraud, F. Pigeon, A. Mure-Ravaud, J.P. Meunier and B. Biasse

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4 - A. Mure-Ravaud, S. Pélissier, F. Pigeon, B. Biasse and G. Pandraud

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*A polarimetric optical fibre sensor immune to temperature variation for detecting vibrations.*

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2 - R. Saldanha, S. Pélissier, K. Kadded, J.L. Coulomb, J.P. Yonnet

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1 - S. Pélissier, R. Saldanha, J.P. Yonnet, J.L. Coulomb

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## **Brevets**

2 - A. LI, P. Gyan, S. Pélissier, P. Venet,  
Dispositif de caractérisation de batteries, FR1257328, 2012

1 - S. Pélissier, D. Blanc, M.P. Andrews et S.I. Najafi.  
*Self-processing of diffractive optical components in hybrid sol-gel glasses.*  
WO 0131401 - 2001