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Pubblicazioni in riviste peer-reviewed

R. Ebrahimi Majdar, C. Crestini, **H. Lange***

Scalable lignin fractionation in continuous flow mode – fractional dissolution of technical lignins.

Manoscritto in preparazione.

M. J. Koetsier, L. Leonov, G. van Muiswinkel, **H. Lange**, C. Crestini, J. Visser

Discovery of lignin demethylating activity by tyrosinase-like polyphenoloxidases secreted by Myceliophthora thermophila C1.

Manoscritto in preparazione.

M. H. Sipponen, **H. Lange**, C. Crestini, A. Henn, M. Österberg

Lignin-based biomaterials as carriers of active organic substances.

Manoscritto in preparazione. 2018, 6, 9342-9351.

H. Lange*, P. Gianni, C. Crestini

Functionalised organosolv lignins for surface modification.

Manoscritto in preparazione.

2018

R. Ebrahimi Majdar, A. Ghasemiana*, C. Crestini*, **H. Lange***

Facile Isolation of LCC-Fraction from Organosolv Lignin by Simple Soxhlet Extraction.

Manoscritto inviato.

R. Ebrahimi Majdar, A. Ghasemiana*, H. Resalatic, A. Saraeiana, C. Crestini*, **H. Lange***

On Kraft Lignin Fractions of Different Molecular Weights Obtained in Soxhlet-based Extractions Using Protic and Aprotic Polar Solvents only.

Manoscritto inviato.

L. Zongo, **H. Lange**, C. Crestini

Kosmotropic and chaotropic ions triggered release from Stimuli Responsive Lignin Microcapsules.

Manoscritto inviato.

E. D. Bartzoka, **H. Lange**, G. Poce, C. Crestini

Stimuli-Responsive Tannin-Fe^{III} Hybrid Microcapsules Demonstrated by the Active Release of an Anti-Tuberculosis Agent.

ChemSusChem, in stampa. DOI: 10.1002/cssc.201801546.

M. H. Sipponen, **H. Lange**, M. Ago, C. Crestini

Kinetically controlled lignin nanoparticle formation in aqueous ethanol for budesonide entrapment and triggered intestinal release.

ACS Sustainable Chem. Eng. 2018, 6, 9342-9351.

P. Gianni, **H. Lange**, C. Crestini

Lipoxygenase: unprecedented carbon-centred lignin activation.

ACS Sustainable Chem. Eng. 2018, 6, 5085-5096.

- 2017** M. H. Sipponen, J. Rahikainen, T. Leskinen, V. Pihlajaniemi, M.-L. Mattinen, **H. Lange**, C. Crestini, M. Österberg
Structural changes of lignin in biorefinery pretreatments and consequences to enzyme-lignin interactions.
NPPRJ **2017**, 32, 546-567.
- E. D. Bartzoka, **H. Lange**, P. Mosesso, C. Crestini
Synthesis of nano and microstructures from proanthocyanidins, tannic acid and epigallocatechin-3-O-gallate for active delivery.
Green Chem. **2017**, 19, 5074–5091.
- C. Crestini, **H. Lange**, M. Sette, D. S. Argyropoulos
On the structure of softwood kraft lignin.
Green Chem. **2017**, 19, 4104–4121.
- 2016** **H. Lange***, F. Rulli, C. Crestini
Gel Permeation Chromatography in Determining Molecular Weights of Lignins: Critical Aspects Revisited for Improved Utility in the Development of Novel Materials.
ACS Sustainable Chem. Eng. **2016**, 4, 5167–5180.
- H. Lange***, P. Schiffels, O. Sevastyanova, M. Sette, C. Crestini
Fractionated Wheat Straw Organosolv Lignin – High Quality Polymeric and Oligomeric Polyphenolic Building Blocks.
ACS Sustainable Chem. Eng. **2016**, 4, 5136–5151.
- C. Nitsos, R. Stoklosa, A. Karnaouri, D. Vörös, **H. Lange**, D. Hodge, C. Crestini, U. Rova, P. Christakopoulos
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ACS Sustainable Chem. Eng. **2016**, 4, 5181–5193.
- A. Karnaouri, **H. Lange**, C. Crestini, U. Rova, P. Christakopoulos
Chemoenzymatic Fractionation and Characterization of Pretreated Birch Outer Bark.
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- C. Crestini, **H. Lange**, G. Bianchetti
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- E. D. Bartzoka, **H. Lange**, K. Tiehl, C. Crestini
Coordination Complexes and one Step Assembly of Lignin for Versatile Nano-Capsule Engineering.
ACS Sustainable Chem. Eng. **2016**, 4, 5194–5203.
- 2015** C. Crestini, **H. Lange**
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Green Chem. **2015**, 17, 4991-5000.
- A. Duval, **H. Lange**, M. Lawoko, C. Crestini
Modification of Kraft Lignin to Expose Diazobenzene Groups: Toward pH- and Light-Responsive Biobased Polymers.
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- C. Crestini, J. Marsh, G. Bianchetti, **H. Lange**
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- 2014**
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- 2013**
- M. R. Lockett, **H. Lange**, B. Breiten, A. Heroux, W. Sherman, D. Rappoport, P. O. Yau, P. W. Snyder, G. M. Whitesides
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- F. Melone, R. Saladino, **H. Lange**, C. Crestini
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Brevetti (come inventore)

- 2018** **H. Lange**, C. Crestini, D. S. Argyropoulos
Fractional Dissolution of Lignins in Segmented Continuous Flow Mode.
Domanda Brevetto Americano in preparazione.
- 2017** E. Bartzoka, **H. Lange**, P. Mosesso, C. Crestini
Nuove Micro e Nanocapsule di Tannini Utili per L'incapsulamento ed il Rilascio Controllato di Principi Attivi.
Domanda Brevetto Italiano n. 102017000030574.
- 2016** M. J. Koetsier, J. Visser, S. L. Iancu, M. A. Kabel, M. Frommhagen, H. Gruppen, **H. Lange**, C. Crestini, B. Benjelloun-Mlayah
Polypeptides Having Demethylating Activity.
WO/2016/207351.
- 2015** A. D. M. Brooker, M. Vaccaro, S. Scialla, B. Benjelloun-Mlayah, C. Crestini, **H. Lange**
Consumer Goods Product Comprising Lignin Oligomer.
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- A. D. M. Brooker, M. Vaccaro, S. Scialla, C. Crestini, **H. Lange**
Consumer Goods Product Comprising Carboxylated Lignin Oligomer.
Domanda Brevetto Internazionale n. 15173588.3-1460.
- A. D. M. Brooker, M. Vaccaro, S. Scialla, C. Crestini, **H. Lange**
Consumer Goods Product Comprising Functionalised Lignin Oligomer.
Domanda Brevetto Internazionale n. 15173590.9-1460.
- A. D. M. Brooker, M. Vaccaro, S. Scialla, C. Crestini, **H. Lange**
Consumer Goods Product Comprising Functionalised Lignin Oligomer.
Domanda Brevetto Internazionale n. 15173593.3-1460.
- A. D. M. Brooker, M. Vaccaro, S. Scialla, C. Crestini, **H. Lange**
Consumer Goods Product Comprising Functionalised Lignin Oligomer.
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- A. D. M. Brooker, M. Vaccaro, S. Scialla, C. Crestini, **H. Lange**
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Domanda Brevetto Internazionale n. 15173603.0-1460.
- P. Morganti, F. Carezzi, B. Benjelloun-Mlayah, S. J. Walker, D. M. Brooker, M. Vaccaro, S. Scialla, C. Crestini, **H. Lange**, E. Bartzoka
A Consumer Goods Product Comprising Chitin, Lignin and a Polymer or Co-polymer.
EP2995321 A1, US20160074311, WO2016042471A1, WO2016042474A1, WO2016042483A1

Contributi in libri scientifici

- 2018** **H. Lange**, C. Crestini
Lignin: isolation, structure and valorisations.
In: *Bionanotechnology to Save the Environment* (ed: P. Morganti), Multidisciplinary Digital Publishing Institute, **2018**, in stampa.
- H. Lange***, P. Gianni, C. Crestini
Lignin analytics.
In: *Lignin Valorization: Emerging Approaches* (ed: G. Beckham), Royal Society of Chemistry, Cambridge, Regno Unito, **2018**, pp.413-476.
- 2016** E. D. Bartzoka, **H. Lange**, C. Crestini
Ultrasound assisted functionalization of polyphenols.
In: *Handbook of Ultrasonics and Sonochemistry* (ed: M. Ashokkumar), John Wiley & Sons, Inc., Hoboken, NJ, USA, **2016**, pp. 995–1020.
- 2015** **H. Lange**, E. D. Bartzoka, C. Crestini
Lignin Biorefinery: Structure, Pre-Treatment and Use.
In: *Biorefineries* (eds: M. Aresta, A. Dibenedetto, F. Dumeignil), Walter de Gruyter GmbH, Berlino/Boston, **2015**, pp. 257–282.
- E. D. Bartzoka, C. Crestini, **H. Lange***
Biodegradable and biomass-derived polymers in pharmaceutical applications.
In: *Handbook of Polymers for Pharmaceutical Technologies: Biodegradable Polymers, Volume 3* (eds: V. K. Thakur, M. K. Thakur), John Wiley & Sons, Inc., Hoboken, NJ, USA, **2015**, pp. 127–203.

Presentazioni orali e presentazioni poster (selezione)

- 11/2018** **13th World Congress of the International Society of Cosmetic Dermatology (ISCD)**, Roma, Italia
Presentazione orale: *Sonochemically triggered self-assembly of lignins microcapsules for storage and delivery applications.*

- 13th World Congress of the International Society of Cosmetic Dermatology (ISCD)**, Roma, Italia
Presentazione orale: *Lignin nanoparticles as vehicles for transport and active release of hydrophobic actives.*
- 09/2018** **XXXVIII Convegno della Divisione di Chimica Organica della Società Chimica Italiana**, Milano, Italia
Presentazione orale: *Carbenes and nascent hydrogen for reductive derivatisation of technical lignins.*
- 03/2018** **255th ACS National Meeting & Exposition – Nexus of Food, Energy & Water**, New Orleans, USA
Presentazione orale: *Against all odds: Carbon nanofibers from unmodified low molecular weight lignin fractions.*
- 255th ACS National Meeting & Exposition – Nexus of Food, Energy & Water**, New Orleans, USA
Poster: *Tannin micro- and nanocapsules for storage and controlled delivery of hydrophobic molecules.*
- 09/2017** **XXVI Congresso della Società Chimica Italiana**, Paestum, Italia
Presentazione orale: *Towards integrated continuous-flow fractionation and functionalisation of technical lignins.*
- 03/2017** **FP1306 COST Action “LIGNOVAL” 3rd WORKSHOP & 4th MC MEETING**, Torremolinos, Spagna
Presentazione orale: *Ultrasound driven self-assembly of tannins into micro- and nanoscaled capsules for storage and delivery of small active hydrophobic molecules.*
- 09/2016** **XXXVII Convegno della Divisione di Chimica Organica della Società Chimica Italiana**, Mestre, Italia
Presentazione orale: *Sustainable Diversifying Functionalisation of Technical Lignins.*
- 03/2016** **251th ACS National Meeting & Exposition – Computers in Chemistry**, San Diego, USA
Presentazione orale: *Ultrasound driven self-assembly of natural polyphenols into microcapsules and nanoparticles for storage and delivery of hydrophobic molecules.*
- 09/2015** **18th International Symposium on Wood, Fibre and Pulp Chemistry – ISWFPC 2015**, Vienna, Austria
Poster: *Electrospinning of lignin/chitin composite nanofibers.*
Acknowledged: 3rd Poster Prize.
- 03/2015** **249th ACS National Meeting & Exposition – Chemistry of Natural Resources**, Denver, USA
Presentazione orale: *Why ‘laboratory standard’ is not good enough in GPC-analyses of lignins.*
- 249th ACS National Meeting & Exposition – Chemistry of Natural Resources**, Denver, USA
Presentazione orale: *Correlating structural features of lignin with physical properties: Towards a descriptive-predictive database.*
- 249th ACS National Meeting & Exposition – Chemistry of Natural Resources**, Denver, USA
Presentazione orale: *Lipoxygenase in Lignin Biorefinery.*
- 11/2014** **COST Action FP 1105 – Workshop “WoodCellNet”**, Salonicco, Grecia
Presentazione orale: *Correlating Structural Features of Lignin with Physical Properties - Towards a Descriptive-Predictive Database.*
- 10/2014** **Frontiers in Biorefining**, St. Simons Island, USA
Presentazione orale: *Recent Advances in the Targeted Functionalization of Lignins.*

- 09/2014** **XXV Congresso della Società Chimica Italiana**, Rende, Italia
Presentazione orale: *Advanced structural analysis of lignin – a strategy for improving functionalisation of lignin.*
- 09/2013** **COST Action FP 0901 - “Biorefinery analytics – Outcomes from COST Action FP0901”**,
Turku, Finlandia
Presentazione orale: *On the Implications of Calibration Techniques and Detector Systems on GPC-Based Analyses of Lignin.*
- 02/2013** **COST – FTP Forum - “Young researchers direct the way to innovation in the forest based sector.”**, Barcellona, Spagna
Poster: *Exploring Alternative Strategies for Lignin Functionalisation and Modification.*
- 12/2011** **Harvard University Origins of Life Initiative - Chalk Talk**, Cambridge, USA
Presentazione orale su invito: *The Chemical Origin of Life.*
- 11/2009** **Webinar**
MT ReactIR™ 45m Flow Cell - Application to Continuous Processing Technology
(<http://uk.mt.com/gb/en/home/events/webinar/ondemand/flow-cell.html>).
- 01/2009** **Zing – Microwave and Flow Chemistry Conference**, Jolly Beach, Antigua e Barbuda
Poster: *Towards the Total Syntheses of Spirangiens A and B in Flow.*
- 06/2007** **8th Tetrahedron Symposium “Challenges in Organic Chemistry”**, Berlino, Germania
Poster: *Chiral α -Metallated Benzyl Carbamates – Interesting Intermediates in Organic Synthesis.*