

Publication List

A) Contribution to books

- (1) A. Devaux, F. Cucinotta, **S. Kehr**, L. De Cola*, (2010): Functionalization and Assembling of Inorganic Nanocontainers for Optical and Bio-medical Applications in Functional Supramolecular Architectures for Organic Electronics and Nanotechnology. Germany. Wiley VCH.

B) Articles in journals

- (41) A. Motealleh, H. Hermes, J. Jose, **N. S. Kehr***, "Chirality-Dependent Cell Adhesion and Enrichment in Janus Nanocomposite Hydrogels", *Nanomedicine* **2018**, 14, 247 - 256.
- (40) F. Schlüter, K. Riehemann, **N. S. Kehr**, S. Quici, C. G. Daniliuc, F. Rizzo*, "Highly fluorescent water soluble spirobifluorene dye with large Stokes shift: synthesis, characterization and bio-applications", *Chem. Commun.* **2018**, 54, 642 - 645.
- (39) A. Motealleh, **N. S. Kehr***, "Janus Nanocomposite Hydrogels for Chirality-Dependent Cell Adhesion and Migration", *ACS Appl. Mater. Interfaces.* **2017**, 9, 33674 – 33682.
- (38) **N. S. Kehr***, „Janus Enantiomorphous Nanomaterial Assembly on Substrate Surfaces for Chirality-Dependent Cell Adhesion, *Colloids Surf. B*, **2017**, 159, 125.
- (37) **N. S. Kehr***, J. Jose, „Chirality-Dependent Cellular Uptake of Chiral Nanocarriers and Intracellular Delivery of Different Amounts of Guest Molecules", *Appl. Surf. Sci.* **2017**, 425, 432 – 439.
- (36) **N. S. Kehr***, A. Motealleh, „Nanocomposite (Janus) paper as 3D cell culture system", *Colloids Surf. B*, **2017**, 156, 236 – 242.
- (35) **N. S. Kehr***, "Microcontact Printing of (Bio)Molecules on Self-Assembled Monolayers of Zeolites L and Surface Mediated Drug Delivery", *Adv. Porous Mater.* **2017**, 5, 1 – 9.
- (34) A. Motealleh, **N. S. Kehr***, "Nanocomposite Hydrogels and Their Applications in Tissue Engineering", *Adv. Healthcare Mater.* **2017**, 6, 16009388 (invited review article).
- (33) **N. S. Kehr***, A. Motealleh, A. H. Schäfer, "Cell Growth on "Janus" Density Gradients of Bifunctional Zeolites L", *ACS Appl. Mater. Interfaces.* **2016**, 8, 35081 – 35090.
- (32) B. Ergün, L. De Cola, H.-J. Galla, **N. S. Kehr***, "Surface Mediated Stimuli Responsive Organic Molecules Delivery from Porous Carrier to Adhered Cells", *Adv. Healthcare Mater.* **2016**, 5, 1588 – 1592.
- (31) **N. S. Kehr***, "Enantiomorphous Periodic Mesoporous Organosilica based Nanocomposite Hydrogel Scaffolds for Cell Adhesion and Cell Enrichment", *Biomacromolecules*, **2016**, 17, 1117 – 1122.
- (30) **N. S. Kehr***, K. Riehemann, "Controlled Cell Growth and Cell Migration in PMOs/Alginate Nanocomposite Hydrogels", *Adv. Healthcare Mater.* **2016**, 5, 193 – 197.
- (29) **N. S. Kehr***, H.-J. Galla, K. Riehemann, H. Fuchs, "Self-assembled monolayers of enantiomerically functionalized periodic mesoporous organosilicas and the effect of surface chirality on cell adhesion behaviour", *RSC Adv.* **2015**, 5, 5704 – 5710.
- (28) **N. S. Kehr***, S. Atay, B. Ergün, "Self-assembled Monolayers and Nanocomposite Hydrogels of Functional Nanomaterials for Tissue Engineering Applications" *Macromol. Biosci.* **2015**, 15, 445 – 463 (invited review article).
- (27) **N. S. Kehr***, B. Ergün, H. Lülff, L. De Cola*, "Spatial controlled channel entrances functionalisation of zeolites L", *Adv. Mater.* **2014**, 26, 3248 – 3252.
- (26) K. Benson, H.-J. Galla, **N. S. Kehr***, "Cell adhesion behaviour in 3D hydrogel scaffolds functionalized with D- or L-aminoacids" *Macromol. Biosci.* **2014**, 14, 793 – 798.
- (25) M. Mauro*, A. Aliprandi, D. Septiadi, **N. S. Kehr**, L. De Cola*, "When self-assembly meets biology: luminescent platinum complexes for imaging applications" *Chem Soc. Rev.* **2014**, 43, 4144 – 4166.

- (24) C. Glotzbach, U. Kauscher, J. Voskuhl, **N. S. Kehr**, M. C. A. Stuart, R. Fröhlich, H. J. Galla, B. J. Ravoo, K. Nagura, S. Saito, S. Yamaguchi*, E.-U. Würthwein*, "*Fluorescent Modular Boron Systems Based on NNN- and ONO-Tridentate Ligands: Self-Assembly and Cell Imaging*" *J. Org. Chem.* **2013**, 78, 4410 – 4418.
- (23) **N. S. Kehr***, E. A. Prasetyanto, K. Benson, B. Ergün, A. Galstyan, H.-J. Galla, "*Periodic Mesoporous Organosilica-Based Nanocomposite Hydrogels as Three-Dimensional Scaffolds*" *Angew. Chem. Int. Ed.*, **2013**, 52, 1156 - 1160.
- (22) K. Benson, Y. E. A. Prasetyanto, H.-J. Galla, **N. S. Kehr***, "*Bifunctional periodic mesoporous organosilicas and their self-assembled monolayers as biocompatible surfaces*" *Soft Matter*, **2012**, 5, 10845 - 10852.
- (21) F. Versluis, J. Voskuhl, M.C.A Stuart, **N. S. Kehr**, B. J. Ravoo*, A. Kros*, "*Power Struggles between oligopeptides and Cyclodextrin Vesicles*" *Soft Matter*, **2012**, 8, 8770 - 8777.
- (20) A. J. Ruiz-Sanchez, M. I. Montañez, C. Mayorga, M. J. Torres, **N. S. Kehr**, Y. Vida, D. Collado, F. Najera, L. De Cola, E. Perez-Inestrosa*, "*Dendrimer-Modified Solid Supports: Nanostructured Materials with Potential Drug Allergy Diagnostic Applications*", *Current Medical Chem.*, **2012**, 19, 4952 - 4954.
- (19) O. Z. Fisher, B. L. Larson, D. Graupner, M. T. Nguyen-Kim, **N. S. Kehr**, L. De Cola, R. Langer*, D. G. Anderson*, "*Melanin-like Hydrogels Derived From Gallic Macromers*" *Adv. Mater.* **2012**, 24, 3032-3036.
- (18) J. El-Gindi, K. Benson, L. De Cola, H.-J. Galla, **N. S. Kehr***, "*Cell Adhesion Behaviour on Enantiomerically Functionalized Zeolite L Monolayers*" *Angew. Chem. Int. Ed.*, **2012**, 51, 3716-3720.
- (17) **N. S. Kehr***, J. El-Gindi, H. J. Galla, L. De Cola*, "*Click Chemistry on Self-assembled Monolayer of Zeolite L Crystals by Microcontact Printing - Applications in Nanobiotechnology*" *Mic. Mes. Mater.*, **2011**, 144, 9-14.
- (16) **N. S. Kehr***, K. Riehemann, J. El-Gindi, A. Schäfer, H. Fuchs, H. J. Galla, L. De Cola*, "*Cell Adhesion and Cellular Patterning on a Self-Assembled Monolayer of Zeolite L Crystals*" *Adv. Funct. Mater.*, **2010**, 20, 2248-2254.
- (15) **N. S. Kehr***, A. Schäfer, B. J. Ravoo, L. De Cola*, "*Asymmetric printing of molecules and zeolites on self assembled monolayers*" *Nanoscale*, **2010**, 2, 601–605.
- (14) F. Verluis, I. Tomatsu, **S. Kehr**, C. Fregonese, M. Stuart, B. J. Ravoo*, R. Koning, A. Kros*, "*Shape and Release Control of a Peptide Decorated Vesicle through pH Sensitive Orthogonal Supramolecular Interactions*" *J. Am. Chem. Soc.*, **2009**, 131, 13186–13187.
- (13) K. Nienkemper, G. Kehr, **S. Kehr**, R. Fröhlich, G. Erker*, "*(N-Arylaminoethyl)pyridine-N-oxides: Synthesis and characterization of potential ligand systems and the formation of their N,O-chelate aluminum complexes*" *J. Org. Chem.*, **2008**, 18, 3063- 3073.
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- (10) H. Lange, K. Bergander, R. Fröhlich, **S. Kehr**, S. Nakamura, N. Shibata, T. Toru, D. Hoppe*, "*Highly enantioselective reactions of configurationally labile epimeric diamine complexes of lithiated S-benzyl thiocarbamates*" *Chem. Asian J.*, **2008**, 3, 88-101.
- (9) P. Spies, G. Kehr, **S. Kehr**, R. Fröhlich, G. Erker*, "*Formation and Structural and Dynamic Features of Atropisomeric η^2 -Iminoacyl Zirconium Complexes*" *Organometallics*, **2007**, 26, 5612-5620.
- (8) **S. Kehr**, H. Luftmann*, "*Polymer characterization by electrospray-mass-spectrometry - shifting the upper mass limit*" *e-Polymers*, **2007**, 10.
- (7) **S. Ünal**, R. Fröhlich, D. Hoppe*, "*Synthesis of enantioenriched and diastereomerically pure cis-fused bicyclic α -oxy-substituted γ -lactones via epoxidation of optically active homoaldol products*" *Synthesis*, **2005**, 15, 2507–2520.

- (6) R. Kalkoven, S. Brandau, **S. Ünal**, R. Fröhlich, D. Hoppe*, "Enantio- and diastereoselective synthesis of highly substituted acylcyclopropanes from homoaldol products by stereospecific homoallylic cyclization" *Eur. J. Org. Chem.*, **2005**, 21, 4571–4580.
- (5) **S. Ünal**, M. Özlügedik, R. Fröhlich, D. Hoppe*, "Diastereoselective synthesis of enantioenriched, annulated tetrahydrofurans by simultaneous formation of the O-1-C-5 and the C-5-C-4 bonds" *Adv. Synth. Cat.*, **2005**, 347, 1621–1626.
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- (3) **S. Ünal**, R. Fröhlich, R. Aumann*, "Organic synthesis via transition metal complexes, part 120. C-C insertion: Insertion of an alkyne into the C-C single bond between the carbene-carbon atom and the π -carbon atom of a Fischer carbene complex by an unprecedented metalla(di- π -methane) skeletal rearrangement" *Chem. Eur. J.*, **2003**, 9, 3000-3009.
- (2) R. Altundas, A. Dastan, **S. Ünal**, K. Guven, O. Uzun, M. Balci*, "The di- π -methane photorearrangement of 2,3-Disubstituted benzobarrelenes and benzonorbornadiene - substituent effects in regioselectivity" *Eur. J. Org. Chem.*, **2002**, 3, 526-533.
- (1) **S. Ünal**, M. Balci*, "Substituent effect on regioselectivity in the di- π -methane rearrangement: synthesis of disubstituted benzobarrelene derivatives and their photochemistry" *Tetrahedron Lett.*, **2001**, 42, 8365-8367.