Dr. sc. ETH Zürich Renzo Annunziato Raso

Spitalweg 20
CH-4143
Dornach, SO
Tel.: +41 (0) 76 565 08 05
e-mail: renzo.raso@fhnw.ch

Born on December 9th, 1982 in Basel, CH
Citizen of Polistena (Italy)
Swiss permission C since birth
Married, 3 Children
Languages: GER (native), IT (native), ENG (fluent), FR (interm.)

Professional experience

Jul. 2022 – current	Lecturer and Group Leader at **FHNW HLS ICB**, Polymer chemistry, Biomaterials and Surface Functionalization.
Jul. 2017 – current	Director of Research at HeiQ Materials AG (December 7th 2020, HeiQ plc) and R&D Chemist on various products for the textile industry including. Interaction with academic and industrial partner for R&D Projects bringing new technology to market, Business development Lab head with 9 co-workers, responsible for Laboratory development including chemical synthesis; responsible for lab and site safety
Jan. 2015 – Jun. 2017	**Fachhochschule Nordwestschweiz (FHNW)** Postdoc in the group of *Prof. Dr. Uwe Pieles;* managing and working on several projects including thermo- responsive polymers, authentication systems for textiles, hydrophilic polyurethane membranes, cementitious mortars, ETICS, plant residual materials for animal feeding and others. In course of planning: silicate composite material; origin and mitigation of malodorous compounds on textiles.
Oct. 2011 – Dec. 2014	**ETH Zurich**, PhD thesis, *Prof. W. J. Stark*, Functional Materials Laboratory, *In situ regenerable air purifier - multiples strategies for air cleaning*
2008 – 2009	**Fachhochschule Nordwestschweiz (FHNW)** Research fellow, *Prof. Dr. Uwe Pieles,* feasibility studies and research on cementitious mortars and artificial bones
2004 – 2005	**F. Hoffmann-La Roche AG**, Laboratory Assistant on drugs solubility study, Pharmaceutical Profiling, *Dr. J. Alsenz*

Education

2009 – 2011	**ETH Zürich**, MSc Studies in Chemistry Master Thesis with *Prof. Dr. J. W. Stark*, ETHZ, *A new analytical strategy - Investigation of technical lignin and its degradation compounds* Research project II, *Prof. Dr. R. Nesper, Si/C materials for batteries* Research project I, *Prof. Dr. A. Baiker, NO_X storage reaction*
2005 – 2008	**FHNW**, Diploma Studies in Chemistry, Muttenz, Switzerland. **Linköping Technical University**, *Sweden,* Diploma Thesis, *Prof. Dr. U. Pieles* FHNW and *Prof. Dr. Per-Olov Käll* (LiU), *Synthesis and characterization of rare*

	earth transition metal oxides for magnetic resonance imaging
2003 – 2004	Professional maturity, AGS, Basel
2000 – 2003	**Hoffmann-La Roche AG**, Apprenticeship as Laboratory Technician, Occupational exposure–monitoring lab (PSUG-AH), *Alex Wachter*, *Dr. W. Spieler*; Chemistry Technology and Innovation, Organic synthesis, *Dr. R. Jakob-Roetne* (Central Nervous System)

Teaching experience

2011 – 2013	ETHZ, Teaching assistance, introductory course in chemical engineering for chemists and chemical engineers.
2011 – 2012	Responsible for exercises and examinations ETHZ, Laboratory course – chemistry for undergraduate
2005 – 2017	Teacher at Rebisto GmbH, *Karin Viscardi*, Gelterkinden, CH
2004 – 2011	Martial arts instructor, Basel

Skills

People	Communicative, motivating, leadership, solution oriented, constructive, empathic
IT	MS Office, Origin, ChemDraw, Adobe Illustrator
Lab	(U)HPLC-MS, GC-MS, Microanalysis, IR, UV-Vis, AAS, organic synthesis, NMR, etc.

Awards

2008	*Diplompreis* of Novartis for the best interdisciplinary thesis
2003	Scholarship Roche Foundation

Selected Public contribution / Documents

Interview: 2008, BaZ, "Ich wollte an der Herausforderung wachsen" zum Bachelor Abschluss
Interview: Science Industries Switzerland, Interview on Innovation, 28.5.2020
Magazine Article: TEXTILPlus Nr. 7/8-2020
Magazine Article: Apparel insider 50, The Global starts of sustainable textiles, Jun/July 2020
Normative: Community masks- Basic requirements and test procedure, SNR 30000, INB, 2021-01

References Available on request

Refereed Journal Articles

1. R. A. Raso, Bühler T, Steinbauer V., Zurbriggen R. Aberle T.Waser H. Heini U. Lang J., Impact resistance of ETICS - the role of the redispersible polymer powder, **Drymix Mortar Yearbook** 2017
2. Mora C. A, Herzog A. F, Raso R. A, Stark W. J, Programmable living material containing reporter micro-organisms permits quantitative detection of oligosaccharides, **Biomaterials**, 61, 1–9, 2015
3. Christoph R. Kellenberger, Florian C. Pfleiderer, R. A. Raso, Cornelia H. Burri, Christoph M. Schumacher, Robert N. Grass and Wendelin J. Stark, Limestone nanoparticles as nanopore templates in polymer membranes: narrow pore size distribution and use as self-wetting dialysis membranes, **RSC Adv.**, 4, 61420, 2014
4. Elia M. Schneider, Renzo A. Raso, Corinne J. Hofer, Martin Zeltner, Robert D. Stettler, Samuel C. Hess, Robert N. Grass, and Wendelin J. Stark, Magnetic Superbasic Proton Sponges Are Readily Removed and Permit Direct Product Isolation, **J. Org. Chem.**, 2014, 79 (22), pp 10908–10915
5. Samuel Christoph Hess, Alexander Xavier Kohll, R. A. Raso, Christoph Martin Schumacher, Robert N. Grass, and Wendelin J. Stark, Template-Particle Stabilized Bicontinuous Emulsion Yielding Controlled Assembly of Hierarchical High-Flux Filtration Membranes, **Applied Materials & Interfaces**, 2015
6. R. A. Raso, M. Zeltner and W. J. Stark, Indoor air purification using activated carbon adsorbers: regeneration using catalytic combustion of intermediately stored VOC, **Ind. Eng. Chem. Res.** 2014, 53, 19304 − 19312

7. P. R. Stoessel, R. A. Raso, T. Kaufmann, R. N. Grass, W. J. Stark, Fibers mechanically similar to sheep wool obtained by wet spinning of gelatin and optional plasticizers, **Macromol. Mater. Eng.**, online (2014)
8. R.A. Raso, P. R. Stoessel and W. J. Stark, Physical mixtures of CeO_2 and zeolites as regenerable indoor air purifier: Adsorption and temperature dependent oxidation of VOC, **J. Mater. Chem. A**, 2, 14089 – 14098, 2014
9. R. A. Raso, A. Stepuk, D. Mohn, D. Paunescu, F.M. Koehler, W.J. Stark, Regenerable cerium oxide based odor adsorber for indoor air purification from acidic volatile organic compounds, **Appl. Catal. B: Environmental**, 147, 965-972, 2013
10. Th. Bühler, R. Zurbriggen, U. Pieles, L. Huwiler, R. A. Raso, Dynamics of early skin formation of tiling mortars investigated by microscopy and diffuse reflectance infrared Fourier transformed spectroscopy, **Cement. Concr. Compos.**, 37, 161–170, 2013
11. F.M. Koehler, R.A. Raso, R.N. Grass, W.J. Stark, β-D-Glucosidase Assisted Gold Dissolution as Non-Optical and Quantifiable Detection Technique for Immunoassays, **Small**, 9 (23), 4000 – 4005, 2013
12. M. Zeltner, L. M. Toedtli, N. Hild, R. Fuhrer, M. Rossier, L. C. Gerber, R. A. Raso, R. N. Grass and W. J. Stark, Ferromagnetic inks facilitate large scale paper recycling and reduce bleach chemical consumption, **Langmuir**, 29 (16), 5093 – 5098, 2013
13. C. M. Schumacher, F. M. Koehler, A.C.C. Rotzetter, R. A. Raso, W.J. Stark, Nanoparticle-assisted, Catalytic etching of carbon surfaces as a method to manufacture nanogrooves, **J. Phys. Chem. C**, 116 (25), 13693–13698 (2012).

Additional contributions (2004 – 2005 at F. Hoffmann-La Roche AG)

J. Alsenz et al., Development of a Partially Automated Solubility Screening (PASS) Assay for Early Drug Development, **J. Pharm. Sci.**, 96, (7), 1748 – 1762, 2007

N. Wyttenbach et al., Miniaturized Assay for Solubility and Residual Solid Screening (SORESOS) in Early Drug Development, **Pharm. Res.** 24, (5), 888 – 898, 2007

Patents

- Antiviral textile treatment WO21191140; WO21191141
- Thermoresponsive hydrogel for textile treatment (in preparation)
- Biobased wrinkle free cotton treatment (in preparation)