

Publikationen, Konferenzbeiträge und Popularisierung

305 Zitate, h-Faktor: 11

Zeitschriftenartikel (peer review):

Nummer	Publikation	Impact Factor	Anzahl der Zitierungen
13	Degradation of endocrine disruptor Bisphenol A by ultrasound-assisted electrochemical oxidation in water Matz Dietrich, Marcus Franke, Michael Stelter, Patrick Braeutigam <i>Ultrasonics Sonochemistry</i> , 39, 741, (2017). doi:10.1016/j.ultsonch.2017.05.038	4.321	-
12	Sonoelectrochemical degradation of the anti-inflammatory drug diclofenac in water Pascal Finkbeiner, Marcus Franke, Franziska Anschuetz, Anna Ignaszak, Michael Stelter, Patrick Braeutigam <i>Chemical Engineering Journal</i> , 73, 214, (2015). doi:10.1016/j.cej.2015.03.070	4.321	14
11	Sonoelectrochemical degradation of triclosan in water Yan-Ze Ren, Marcus Franke, Franziska Anschuetz, Bernd Ondruschka, Anna Ignaszak, Patrick Braeutigam <i>Ultrasonics Sonochemistry</i> , 21, 2020, (2014). doi:10.1016/j.ultsonch.2014.03.028	4.321	18
10	Effect of ultrasound amplitude and reaction time on the anaerobic fermentation of chicken manure for biogas production Patrick Braeutigam, Marcus Franke, Bernd Ondruschka <i>Biomass and Bioenergy</i> , 63, 109, (2014). doi:10.1016/j.biombioe.2014.02.007	3.394	13
9	Sonoelectrochemical degradation of phenol in aqueous solutions Yanze Ren, Zhi Lin Wu, Marcus Franke, Patrick Braeutigam, Bernd Ondruschka, Daniel J. Comeskey, Patrick M. King <i>Ultrasonics Sonochemistry</i> , 20, 715, (2013). doi:10.1016/j.ultsonch.2012.09.004	4.321	23
8	Degradation of carbamazepine in environmentally relevant concentrations in water by Hydrodynamic-Acoustic-Cavitation (HAC) Patrick Braeutigam, Marcus Franke, Rudolf J. Schneider, Andreas Lehmann, Achim Stolle, Bernd Ondruschka <i>Water Research</i> , 46, 2469, (2012) doi:10.1016/j.watres.2012.02.013	5.528	62
7	Enhancement of chloroform degradation by the combination of hydrodynamic and acoustic cavitation Marcus Franke, Patrick Braeutigam, Zhi-Lin Wu, Yanze Ren, Bernd Ondruschka <i>Ultrasonics Sonochemistry</i> , 18, 888, (2011) doi:10.1016/j.ultsonch.2010.11.011	4.321	34
6	Enhanced effect of suction-cavitation on the ozonation of phenol Zhilin Wu, Marcus Franke, Bernd Ondruschka, Yongchun Zhang, Yanze Ren, Patrick Braeutigam, Weimin Wang <i>Journal of Hazardous Materials</i> , 190, 375, (2011). doi:10.1016/j.jhazmat.2011.03.054	4.529	31

5	Oxidation of phenol by microbubble-assisted microelectrolysis Yanze Ren, Zhilin Wu, Bernd Ondruschka, Patrick Braeutigam, Marcus Franke, Harald Nehring, Uwe Hampel <i>Chemical Engineering & Technology</i> , 34, 699, (2011) doi:10.1002/ceat.201000534	2.442	14
4	Roles of pumps and bypass in chemistry induced by hydrodynamic cavitation Patrick Braeutigam, Zhi-Lin Wu, Annegret Stark, Bernd Ondruschka <i>Chemical Engineering & Technology</i> , 33, 341, (2010). doi:10.1002/ceat.200900434	2.442	3
3	Role of different parameters in the optimization of hydrodynamic cavitation Patrick Braeutigam, Marcus Franke, Zhi-Lin Wu, Bernd Ondruschka <i>Chemical Engineering & Technology</i> , 33, 932, (2010) doi:10.1002/ceat.201000021	2.442	33
2	Degradation of BTEX in aqueous solution by hydrodynamic cavitation Patrick Braeutigam, Zhi-Lin Wu, Annegret Stark, Bernd Ondruschka <i>Chemical Engineering & Technology</i> , 32, 745, (2009) doi:10.1002/ceat.200800626	2.442	37
1	Degradation of chlorocarbons driven by hydrodynamic cavitation Zhi-Lin Wu, Bernd Ondruschka, Patrick Braeutigam <i>Chemical Engineering & Technology</i> , 30, 642, (2007) doi:10.1002/ceat.200600288	2.442	19

Buchkapitel:

Nummer	Publikation
1	Degradation of organic micropollutants by hydrodynamic and/or acoustic cavitation Patrick Braeutigam <i>Handbook of Ultrasonics and Sonochemistry</i> , Springer, (2016) doi:10.1007/978-981-287-470-2_56-1

Vorträge und Poster auf Konferenzen:

Nummer	Beitrag	Art des Beitrages
30	Correlation between oxidative degradation and chemical structure of selected compounds in aqueous systems Maik Weisse, Michael Stelter, Patrick Braeutigam <i>Advanced Oxidation Technologies for Treatment of Water, Air and Soil (AOTs-23), Clearwater Beach (USA), (11/2017)</i>	Präsentation
29	Sonophotocatalytic generation of hydroxyl radicals (*OH) and degradation of bisphenol A by high-power UV-LEDs and TiO₂-Nanotubes Dirk Paustian, Erik Schulze, Michael Stelter, Patrick Braeutigam <i>Advanced Oxidation Technologies for Treatment of Water, Air and Soil (AOTs-23), Clearwater Beach (USA), (11/2017)</i>	Präsentation
28	Spurenstoffelimination in Wasser mit Hilfe von Kavitation und kavitationsassistierten Verfahren Patrick Braeutigam, Marcus Franke, Franziska Anschütz, Rudolf J. Schneider, Matz Dietrich, Pascal Finkbeiner, Bernd Ondruschka, Michael Stelter <i>GDCh Jahrestagung der Wasserchemisches Gesellschaft (Wasser 2017), Donaueschingen (Deutschland), (05/2017)</i>	Poster
27	Sorptionsverhalten von Schadstoffen auf Mikroplastik am Beispiel von N-haltigen organischen Modellverbindungen Thorben Vockenber, Thomas Wichard, Patrick Braeutigam <i>GDCh Jahrestagung der Wasserchemisches Gesellschaft (Wasser 2017), Donaueschingen (Deutschland), (05/2017)</i>	Poster
26	Hydrodynamische Kavitation zum Abbau von Bisphenol A in Wasser Manuel Deggelmann, Marcus Franke, Michael Stelter, Patrick Braeutigam <i>GDCh Jahrestagung der Wasserchemisches Gesellschaft (Wasser 2017), Donaueschingen (Deutschland), (05/2017)</i>	Poster
25	Sonophotokatalytische Generierung von Hydroxylradikalen an TiO₂-Nanopartikeln und deren Bestimmung durch Salicylsäure-Dosimetrie Dirk Paustian, Michael Stelter, Patrick Braeutigam <i>GDCh Jahrestagung der Wasserchemisches Gesellschaft (Wasser 2017), Donaueschingen (Deutschland), (05/2017)</i>	Poster
24	Hydrodynamic/Acoustic Cavitation for water treatment and bioenergy production Patrick Braeutigam, Marcus Franke, Franziska Anschütz, Bernd Ondruschka, Michael Stelter <i>15th Meeting of the European Society of Sonochemistry (ESS 15), Istanbul (Türkei), (06/2016)</i>	Präsentation
23	Sonoelectrochemical degradation of micropollutants in water Patrick Braeutigam, Pascal Finkbeiner, Matz Dietrich, Yanze Ren, Marcus Franke, Bernd Ondruschka, Michael Stelter <i>15th Meeting of the European Society of Sonochemistry (ESS 15), Istanbul (Türkei), (06/2016)</i>	Poster
22	Degradation of 17α-Ethinyl estradiol in water by hydrodynamic-acoustic-cavitation: Frequency effects Franziska Anschuetz, Marcus Franke, Patrick Braeutigam, Achim Stolle, Bernd Ondruschka <i>4th European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP4), Athen (Griechenland), (10/2015)</i>	Präsentation

- 21 **Hydrodynamic-Acoustic-Cavitation - New developments and applications** Präsentation
Patrick Braeutigam, Marcus Franke, Franziska Anschuetz, Bernd Ondruschka, Michael Stelter
2nd Asia-Oceania Sonochemical Society Conference (AOSS-2), Kuala Lumpur (Malaysia), (07/2015)
- 20 **Pharmazeutika im Wasserkreislauf – Potentiale alternativer Rückhalteverfahren** Präsentation
Patrick Braeutigam
*CIO-Campus „Wasser und Wertstoffe – Kreislaufwirtschaft als Wachstumsimpuls“
Fraunhofer IKTS Hermsdorf (Deutschland), (01/2015)*
- 19 **Hydrodynamic-Acoustic-Cavitation (HAC) for Biodiesel Synthesis** Präsentation
Marcus Franke, Bernd Ondruschka, Michael Stelter, Patrick Braeutigam
3rd International Conference on Environment, Chemistry and Biology (ICECB 2014), Port Louis (Mauritius), (12/2014)
- 18 **The use of hydrodynamic-acoustic-cavitation in biofuel / bioenergy production** Präsentation
Patrick Braeutigam, Marcus Franke, Bernd Ondruschka, Michael Stelter,
1st International conference on ultrasonic-based applications, Lissabon (Portugal), (09/2014)
- 17 **Evaluation of different parameters on hydroxyl radical formation in hydrodynamic-acoustic-cavitation (HAC)** Präsentation
Patrick Braeutigam, Marcus Franke, Franziska Anschuetz, Bernd Ondruschka, Michael Stelter
14th Meeting of the European Society of Sonochemistry (ESS 14), Avignon (Frankreich), (06/2014)
- 16 **Degradation of micropollutants in water by hydrodynamic-acoustic-cavitation** Präsentation
Patrick Braeutigam, Marcus Franke, Franziska Anschuetz, Rudolf J. Schneider, Bernd Ondruschka
International Conference on Environment and Energy 2013 (ICEE 2013), Colombo (Sri Lanka), (12/2013)
- 15 **Hydrodynamisch-Akustische Kavitation in der Bioenergie- und Umweltforschung** Präsentation
Patrick Bräutigam
5. Workshop Kavitation in Medizin und Technik, Drübeck (Deutschland), (06/2013)
- 14 **Enhancement of biogas yield from chicken manure by acoustic cavitation** Poster
Patrick Braeutigam, Marcus Franke, Bernd Ondruschka
International Conference on Environment – Green Technology for sustainable tomorrow (ICENV 2012), Penang (Malaysia), (12/2012)
- 13 **Environment protection with innovative cavitation technologies – Degradation of 17 α -Ethinylestradiol by Hydrodynamic-Acoustic-Cavitation (HAC)** Präsentation
Franziska Anschuetz, Patrick Braeutigam, Marcus Franke, Rudolf J. Schneider, Bernd Ondruschka
International Conference on Environment – Green Technology for sustainable tomorrow (ICENV 2012), Penang (Malaysia), (12/2012)
- 12 **Detection of ecological harmful arrearages of sewage water with surface enhanced Raman spectroscopy (SERS)** Poster
Sophie Zierbock, Dana Cialla, Patrick Braeutigam, Karin Weber, Jürgen Popp
23rd International conference on Raman spectroscopy, Bangalore (Indien), (08/2012)

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| 11 | <p>Degradation of the anti-epileptic drug carbamazepine in water by Hydrodynamic-Acoustic-Cavitation (HAC)
 Patrick Braeutigam, Marcus Franke, Achim Stolle, Rudolf J. Schneider, Bernd Ondruschka
 <i>13th Meeting of the European Society of Sonochemistry (ESS 13), Lviv (Ukraine), (07/2012)</i></p> | Präsentation |
| 10 | <p>Sonoelectrochemical degradation of phenol with high frequency ultrasound and stainless steel electrode
 Yan-Ze Ren, Zhi-Lin Wu, Marcus Franke, Patrick Braeutigam, Bernd Ondruschka
 <i>13th Meeting of the European Society of Sonochemistry (ESS 13), Lviv (Ukraine), (07/2012)</i></p> | Poster |
| 9 | <p>The separation of azeotropic mixtures by ultrasound-assisted distillation
 Franziska Anschuetz, Marcus Franke, Patrick Braeutigam, Bernd Ondruschka
 <i>13th Meeting of the European Society of Sonochemistry (ESS 13), Lviv (Ukraine), (07/2012)</i></p> | Präsentation |
| 8 | <p>Degradation of the antiepileptic drug carbamazepine by Hydrodynamic-Acoustic-Cavitation
 Patrick Braeutigam, Marcus Franke, Achim Stolle, Bernd Ondruschka, Rudolf J. Schneider
 <i>3rd International Congress on Green Process Engineering, Kuala Lumpur (Malaysia), (12/2011)</i></p> | Poster |
| 7 | <p>Hydrodynamic-Acoustic-Cavitation (HAC) for technical applications: Biodiesel synthesis
 Marcus Franke, Patrick Braeutigam, Yanze Ren, Bernd Ondruschka
 <i>3rd International Congress on Green Process Engineering, Kuala Lumpur (Malaysia), (12/2011)</i></p> | Poster |
| 6 | <p>Abbau des Antiepileptikums Carbamazepin in aquatischen Systemen durch Hydrodynamisch-Akustische-Kavitation
 Patrick Bräutigam, Rudolf J. Schneider, Marcus Franke, Achim Stolle, Bernd Ondruschka
 <i>4. Workshop Kavitation in Medizin und Technik, Drübeck (Deutschland), (10/2011)</i></p> | Präsentation |
| 5 | <p>Influence of pipe size on the degradation of chloroform by hydrodynamic cavitation
 Patrick Braeutigam, Marcus Franke, Zhi-Lin Wu, Bernd Ondruschka
 <i>The International Chemical Congress of Pacific Basin Societies 2015 (PACIFICHEM 2010), Honolulu (USA), (12/2010)</i></p> | Präsentation |
| 4 | <p>New parameters for the optimization of hydrodynamic cavitation
 Patrick Braeutigam, Marcus Franke, Zhi-Lin Wu, Bernd Ondruschka, Yanze Ren
 <i>12th Meeting of the European Society of Sonochemistry (ESS 12), Chania, (Griechenland), (06/2010)</i></p> | Präsentation |
| 3 | <p>Enhancement of CHCl₃ degradation by a hybrid cavitation method
 Patrick Braeutigam, Marcus Franke, Zhi-Lin Wu, Bernd Ondruschka
 <i>12th Meeting of the European Society of Sonochemistry (ESS 12), Chania, (Griechenland), (06/2010)</i></p> | Poster |
| 2 | <p>BTEX degradation in aqueous solution by hydrodynamic cavitation at low pressure
 Patrick Braeutigam
 <i>11th Meeting of the European Society of Sonochemistry (ESS 11), La Grande Motte (Frankreich), (06/2008)</i></p> | Präsentation |

- 1 **Einsatz der hydrodynamischen Kavitation beim Abbau von Kontaminationen in wässrigen Systemen am Beispiel des BTEX-Abbaus** Präsentation
Patrick Braeutigam
DEHEMA/DWA – Industrietage Wassertechnik, Frankfurt am Main, (Deutschland), (11/2007)

Popularisierung:

Wasser aus der Kläranlage – Sauber, aber nicht rein

Andrea Hoferichter

Süddeutsche Zeitung, (04/2012)

<http://www.sueddeutsche.de/wissen/wasser-aus-der-klaeranlage-sauber-aber-nicht-rein-1.1334361>

Kavitation – Wasser reinigen mit Ultraschall

Grit Hofmann

Wissenschaftsmagazin „Projekt Zukunft“ der Deutschen Welle, (02/2012)

<http://www.youtube.com/watch?v=v2XeqR9GuNs> (deutsch)

https://www.youtube.com/watch?v=RcqCgge_Fxs (englisch)

https://www.youtube.com/watch?v=CJ83PbC_E14 (spanisch)

Hormone und Antibiotika – Mit Blasen gegen Arzneimittelrückstände im Abwasser

Grit König

Die Welt, (10/2011)

<http://www.welt.de/wissenschaft/umwelt/article13678197/Mit-Blasen-gegen-Arzneirueckstaende-im-Abwasser.html>