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### سوابق تحصیلی

#	مقطع/رشته تحصیلی	دانشگاه محل تحصیل	شهر محل تحصیل	کشور محل تحصیل	تاریخ فارغ التحصیلی
1	کارشناسی	صنعتی امیرکبیر	تهران	ایران	
2	کارشناسی ارشد	صنعتی امیرکبیر	تهران	ایران	
3	دکتری	صنعتی آیندهوون	آیندهوون	هلند	

### علايق تحقيقاتي

#	عنوان علاقمندی	تاریخ آغاز فعالیت
1	پوشش‌های پلیمری هوشمند	
2	شیمی و فیزیک سطوح مواد نرم	
3	برهمکنش‌های بین‌سطحی مواد	
4	کلونیدهای پلیمری	

### پایان‌نامه‌های کارشناسی ارشد

#	عنوان پایان‌نامه	توسط	تاریخ دفاع
1	بررسی بهبود خواص سدگری فیلم‌های پلیمری توسط پوشش حاوی مشتقات گرافن	علی امیرابادیزاده و حسام مکی	دی 1399

شهریور 1399	ابوالفضل گل محمدیان طهرانی و حسام مکی	2 بررسی پیوندزنی زنجیرهای آویزان به شبکه های پلی یورتانی و تاثیر پارامترهای ساختاری و فرآیندی بر ویژگی های سطحی پوشش
بهمن 1398	محمدرضا طهرانچی و حسام مکی	3 بررسی و تعیین ارتباط چسبندگی و خواص ویسکوالاستیک پوشش های بتن
تیر 1398	آرمیتا شریفی و حسام مکی	4 بررسی تجربی و نظری تغییرات ریزساختار نانوکامپوزیت های برپایه ی رزین اپوکسی و فلونئوروپلیمر حاوی نانو ذره در حین شبکه ای شدن

## کتاب

#	عنوان	نگارندگان/مترجمان	کشور	تاریخ نسخه انتشار
داده های ثبت شده در پورتال				
1	SUPERHYDROPHOBIC POLYMER COATINGS(Fundamentals, Design, Fabrication, and Applications) Chapter 9: Superhydrophobic antiicing and ice-release polymer coatings	حسام مکی، حسین یحیایی، سیدمحسن محسنی	United States	مرداد 1398
2	SUPERHYDROPHOBIC POLYMER COATINGS(Fundamentals, Design, Fabrication, and Applications) Chapter 14: Superhydrophobic coatings for medical applications	حسین یحیایی، حسام مکی، سیدمحسن محسنی	United States	مرداد 1398

## مقالات ژورنال

### داده های ثبت شده در پورتال

- 1 Helma Vakili, Seyed Mohsen Mohseni, Hossein Ghanbari, Hossein Yahyaei, Hesam Makki, Alba Gonzalez, Ana Alonso-Varona, Patricia Garrido Pascual, Lourdes Irusta, "Enhanced hemocompatibility of a PEGilated polycarbonate based segmented polyurethane", *INTERNATIONAL JOURNAL OF POLYMERIC MATERIALS AND POLYMERIC BIOMATERIALS*, Vol. 70, Num. 11, Page 1-9, December 2020,
- 2 Helma Vakili, Seyed Mohsen Mohseni, Hesam Makki, Hossein Yahyaei, Hossein Ghanbari, Alba Gonz' Alez, Lourdes Irusta, "Synthesis of segmented polyurethanes containing different oligo segments: Experimental and computational approach", *PROGRESS IN ORGANIC COATINGS*, Vol. 150, Num. 105965, Page 1-12, December 2020,
- 3 Hassan Ghermezcheshme, Hesam Makki, Seyed Mohsen Mohseni, Morteza Ebrahimi, "Hydrophilic dangling chain interfacial segregation in polyurethane networks at aqueous interfaces and its underlying mechanisms: molecular dynamics simulations", *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*, Vol. 22, Num. 11, Page 26351-26363, November 2020,
- 4 Helma Vakili, Seyed Mohsen Mohseni, Hesam Makki, Hossein Yahyaei, Hossein Ghanbari, Alba Gonzalez, Lourdes Irusta, "Microphase Arrangement of Smart Superhydrophilic Segmented Polyurethanes at Their Interface with Water", *LANGMUIR*, Vol. 36, Num. 44, Page 13201-13209, October 2020,
- 5 Helma Vakili, Seyed Mohsen Mohseni, Hesam Makki, Hossein Yahyaei, Hossein Ghanbari, Alba Gonzalez, Lourdes Irusta, "Self-assembly of a patterned hydrophobic-hydrophilic surface by soft segment microphase separation in a segmented polyurethane: Combined experimental study and molecular dynamics simulation", *POLYMER*, Vol. 195, Num. 122424, Page 1-10, March 2020,
- 6 Hassan Ghermezcheshme, Hesam Makki, Seyed Mohsen Mohseni, Morteza Ebrahimi, Gijbertus De With, "MARTINI-based Simulation Method for Step-growth Polymerization and its Analysis by Size Exclusion Characterization: A Case Study of Cross-linked Polyurethane", *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*, Vol. 21, Num. 1, Page 21603-21614, September 2019,
- 7 M. Azimi, S. S. Mirjavadi, A. M. S. Hamouda, Hesam Makki, "Heterogeneities in Polymer Structural and Dynamic Properties in Graphene and Graphene Oxide Nanocomposites: Molecular Dynamics Simulations", *MACROMOLECULAR THEORY AND SIMULATIONS*, Vol. 26, Num. 2, Page 160008-160008, January 2017,



- 1 Koen NS Adema, Hesam Makki, Elias AJF Peters, Jozua Laven, Leendert GJ Van Der Ven, Rolf ATM Van Benthem, Gijsbertus de With, "The influence of the exposure conditions on the simulated photodegradation process of polyester-urethane coatings", *Polymer Degradation and Stability*, Vol. 123, Num. 1, Page 121, 2016, 1
- 2 Hesam Makki, Koen NS Adema, Elias AJF Peters, Jozua Laven, Leendert GJ van der Ven, Rolf ATM van Benthem, Gijsbertus de With, "Multi-scale simulation of degradation of polymer coatings: Thermo-mechanical simulations ", *Polymer Degradation and Stability*, Vol. 123, Num. 1, Page 1, 2016, 1
- 3 Koen NS Adema, Hesam Makki, Elias AJF Peters, Jozua Laven, Leendert GJ Van der Ven, Rolf ATM van Benthem, Gijsbertus de With, "The influence of the exposure conditions on the chemical and physical changes of polyester-urethane coatings during photodegradation", *Polymer Degradation and Stability*, Vol. 123, Num. 1, Page 13, 2016, 1
- 4 Hesam Makki, Koen NS Adema, Elias AJF Peters, Jozua Laven, Leendert GJ van der Ven, Rolf ATM van Benthem, Gijsbertus de With, "Quantitative spectroscopic analysis of weathering of polyester-urethane coatings ", *Polymer degradation and stability*, Vol. 121, Num. 1, Page 280, 2015, 11
- 5 Koen NS Adema, Hesam Makki, Elias AJF Peters, Jozua Laven, Leendert GJ van der Ven, Rolf ATM van Benthem, "Kinetic Monte Carlo simulation of the photodegradation process of polyester-urethane coatings ", *Physical Chemistry Chemical Physics*, Vol. 17, Num. 30, Page 19962, 2015, 7
- 6 Koen NS Adema, Hesam Makki, Elias AJF Peters, Jozua Laven, Leendert GJ van der Ven, Rolf ATM van Benthem, "Weathering of a polyester-urethane clearcoat: lateral inhomogeneities ", *Polymer degradation and stability*, Vol. 122, Num. 1, Page 180, 2015, 12
- 7 Hesam Makki, Koen NS Adema, Elias AJF Peters, Jozua Laven, Leendert GJ van der Ven, Rolf ATM van Benthem, Gijsbertus de With, "Degradation of a polyester-urethane coating: Physical properties ", *Journal of Polymer Science Part B: Polymer Physics*, Vol. 54, Num. 6, Page 659, 2015, 3
- 8 Hesam Makki, Koen NS Adema, Elias AJF Peters, Jozua Laven, Leendert GJ van der Ven, Rolf ATM van Benthem, Gijsbertus de With, "A simulation approach to study photo-degradation processes of polymeric coatings ", *Polymer degradation and stability*, Vol. 105, Num. 1, Page 67, 2014, 04
- 9 Koen NS Adema, Hesam Makki, Elias AJF Peters, Jozua Laven, Leendert GJ van der Ven, Rolf ATM van Benthem, Gijsbertus de With, "Depth-resolved infrared microscopy and UV-VIS spectroscopy analysis of an artificially degraded polyester-urethane clearcoat", *Polymer degradation and stability*, Vol. 110, Num. 1, Page 422, 2014, 12





## مقالات کنفرانس

## داده های ثبت شده در پورتال

- 1 Hesam Makki, "Simulation study of photodegradation process of a coating ", 7th International color and coating congress, January 2018

## دروس ارائه شده

#	عنوان درس	توصیف درس	دوره سرفصل ها	دوره درسی
1	Principle of Processes Calculations	stepping up into the world of engineering - understanding and converting different systems of units - developing material and energy balances		Spring 2021
2	Physical Chemistry of Surface	Introduction to surfaces, thermodynamics of surfaces and interface phenomena		Fall 2020

3	Principle of Processes Calculations	stepping up into the world of engineering - understanding and converting different systems of units - developing material and energy balances		Fall 2020
4	Principle of Processes Calculations	stepping up into the world of engineering - understanding and converting different systems of units - developing material and energy balances		Spring 2020
5	Principle of Processes Calculations	stepping up into the world of engineering - understanding and converting different systems of units - developing material and energy balances		Fall 2019
6	Physical Chemistry of Surface	Introduction to surfaces, thermodynamics of surfaces and interface phenomena		Fall 2019