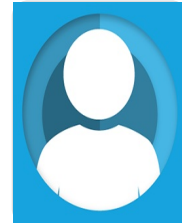




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دانشیار

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گروه آموزشی حرارت و سیالات

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30

ارجاعات (Scopus):

1848

پایان نامه های کارشناسی ارشد

#	عنوان پایان نامه	توسط	تاریخ دفاع
1	بررسی اثر آرایش و شکل الکتروود بر بهبود انتقال حرارت جریان سیال در حضور میدان الکتریکی	مهراش امیرحکیمی و محمدرضا حاج محمدی	مهر 1400
2	مطالعه اثر آرایش دهی موانع در مسیر جریان در یک کانال دوبعدی بر روی افزایش انتقال حرارت به کمک روش شبکه‌ی بولتزمن	صبا میراحسنی و محمدرضا حاج محمدی	شهریور 1400
3	طراحی ساختار هندسی مواد ابررسانای گرمایی در یک قطعه مولد گرما به صورت یک درختواره با شاخه های نابرابر	جواد نجفیان و محمدرضا حاج محمدی	فروردین 1400
4	طراحی بهینه مسیره‌های هدایت حرارتی درون بستر تولید کننده حرارت با رویکرد سه بعدی	رومینا کبیری خلج زاده و محمدرضا حاج محمدی	فروردین 1400
5	طراحی هندسی چاه گرمایی موج دار ریزمقیاس بمنظور بهبود عملکرد خنک کاری با استفاده از سیال حاوی مواد تغییر فاز دهنده	هادی نعمتی مقدم و محمدرضا حاج محمدی	دی 1399
6	بازطراحی هندسی و ساختاری مجراهای داخلی هوا به صورت سه بعدی برای خنک کاری پره‌های C3X	عرفان حسن پورمنصور و محمدرضا حاج محمدی	مهر 1399
7	اثر هندسه ی سطح مقطع بر عملکرد گرمایی چاه های حرارتی ریز مقیاس	سید معین الدین آیت اللهی و محمدرضا حاج محمدی	تیر 1399
8	مطالعه عددی افت فشار و انتقال حرارت در کانال های ریز مقیاس با سطح مقاطع مختلف حاوی نانوسیال با لزجت غیر نیوتنی	امین رضا رمضان و محمدرضا حاج محمدی	شهریور 1398
9	طراحی بهینه چاه های حرارتی ریز مقیاس تحت اثر میدان مغناطیسی	سپهر غلامرضایی و محمدرضا حاج محمدی	تیر 1398
10	انتقال حرارت همزمان در جریان جابجایی اجباری خارجی یک نانوسیال روی صفحه ای با ضخامت محدود	عرفان محکم کار و محمدرضا حاج محمدی	تیر 1398

مهر 1397	علی سرلک و محمدرضا حاج محمدی	11 بهبود عملکرد خنک کاری چاه گرمایی ریز مقیاس با استفاده از نانوسپال با لزجت غیر نیوتونی
مهر 1397	محمد احمدیان علمی و محمدرضا حاج محمدی	12 بهینه سازی ساختار هندسی مواد ابررسانای گرمایی درون یک پره به منظور بیشینه سازی عملکرد آن
شهریور 1397	سیده کیانا نقیب زاده و محمدرضا حاج محمدی	13 بررسی انتقال حرارت در کویل بامقطع لوله های ترکیبی دایروی و مستطیلی ب ا بهره گیری از نانوسپال
اسفند 1396	غیث یحیی احمد ابوصبیح و محمدرضا حاج محمدی	14 مقایسه عملکرد یک سیستم خنک کننده جذبی- خورشیدی در تهران و نجف


مقالات ژورنال








داده های ثبت شده در پورتال

- 1 Hasan Parsa, Majid Saffar-Avval, Mohammadreza Hajmohammadi, "3D simulation and parametric optimization of a solar air heater with a novel staggered cuboid baffles", *INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES*, Vol. 205, Num. 0, Page 106607-106623, June 2021,
- 2 Mohammadreza Hajmohammadi, Mohammad Bahrami, Mohammad Ahmadian Elmi, "Thermal performance improvement of microchannel heat sinks by utilizing variable cross-section microchannels filled with porous media", *INTERNATIONAL COMMUNICATIONS IN HEAT AND MASS TRANSFER*, Vol. 126, Num. 0, Page 105360-105374, May 2021,
- 3 Sayed Moein Ayatollahi, Ali Ahmadpour, Mohammadreza Hajmohammadi, "Performance evaluation and optimization of flattened microchannel heat sinks for the electronic cooling application", *JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY*, Vol. 0, Num. 0, Page 1-15, April 2021,
- 4 Mohammad Ahmadian Elmi, Mohammad Mohammadifar, Erfan Rasouli, Mohammadreza Hajmohammadi, "Optimal design and placement of heat sink elements attached on a cylindrical heat-generating body for maximum cooling performance", *THERMOCHIMICA ACTA*, Vol. 700, Num. 0, Page 178941-178950, April 2021,
- 5 Mohammadreza Hajmohammadi, Ali Doustahadi, Mohammad Ahmadian Elmi, "Heat transfer enhancement by a circumferentially non-uniform array of longitudinal fins assembled inside a circular channel", *INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER*, Vol. 158, Num. 0, Page 120020-120027, July 2020,
- 6 Mohammadreza Hajmohammadi, Mohammad Mohammadifar, Mohammad Ahmadian Elmi, "Optimal placement and sizing of heat sink attachments on a heat-generating piece for minimization of peak temperature", *THERMOCHIMICA ACTA*, Vol. 689, Num. 0, Page 178645-178653, July 2020,
- 7 Mohammadreza Hajmohammadi, Sepehr Gholamrezaie, Ali Ahmadpour, Zohreh Mansoori, "Effects of applying uniform and non-uniform external magnetic fields on the optimal design of microchannel heat sinks", *INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES*, Vol. 186, Num. 0, Page 105886-105897, June 2020,
- 8 Mohammad Reza Daneshvar Garmroodi, Ali Ahmadpour, Mohammadreza Hajmohammadi, Sepehr Gholamrezaie, "Natural convection of a non-Newtonian ferrofluid in a porous elliptical enclosure in the presence of a non-uniform magnetic field", *JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY*, Vol. 0, Num. 0, Page 1-17, November 2019,
- 9 Mohammadreza Hajmohammadi, Erfan Rasouli, Mohammad Ahmadian Elmi, "Geometric optimization of a highly conductive insert intruding an annular fin", *INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER*, Vol. 146, Num. 0, Page 118910-118918, October 2019,
- 10 Mohammadreza Hajmohammadi, Hasan Parsa, Javad Najafian, "Proposing an optimal tree-like design of highly conductive material configuration with unequal branches for maximum cooling a heat generating piece", *INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER*, Vol. 142, Num. 0, Page 118422-118422, July 2019,
- 11 Seyedeh Kiana Naghib Zadeh, Mohammadreza Hajmohammadi, Majid Saffar-Avval, "Heat transfer enhancement of a nanofluid in a helical coil with flattened cross-section", *CHEMICAL ENGINEERING RESEARCH & DESIGN*, Vol. 146, Num. 0, Page 36-47, April 2019,

- 12 Mohammad Ahmadian Elmi, Mohammadreza Hajmohammadi, S.Salman Nourazar Khoshknab, "Geometric optimization of highly conductive inserts with variable thickness embedded in a fin", , Vol. 50, Num. 4, Page 525-532, February 2019,
- 13 Mohammadreza Hajmohammadi, Mohammad Hossein Haji Mollaali Tork, "Effects of the magnetic field on the cylindrical Couette flow and heat transfer of a nanofluid", *PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS*, Vol. 523, Num. 0, Page 234-245, February 2019,
- 14 Mohammadreza Hajmohammadi, Seyed Emad Rezaei Taleshi, "Proposing a new algorithm for the optimization of conduction pathways based on a recursive localization", *APPLIED THERMAL ENGINEERING*, Vol. 151, Num. 0, Page 146-153, January 2019,
- 15 Ali Sarlak, Ali Ahmadpour, Mohammadreza Hajmohammadi, "Thermal design improvement of a double-layered microchannel heat sink by using multi-walled carbon nanotube (MWCNT) nanofluids with nonNewtonian viscosity", *APPLIED THERMAL ENGINEERING*, Vol. 147, Num. 0, Page 205-215, October 2018,
- 16 Mohammadreza Hajmohammadi, Mohammad Ahmadian Elmi, S.Salman Nourazar Khoshknab, "Introducing highly conductive materials into a fin for heat transfer enhancement", *INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES*, Vol. 150, Num. 0, Page 420-426, October 2018,
- 17 Mohammadreza Hajmohammadi, Pedram Ali Pour, Hasan Parsa, "Microfluidic effects on the heat transfer enhancement and optimal design of microchannels heat sinks", *INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER*, Vol. 126, Num. 0, Page 808-815, July 2018,
- 18 Mohammadreza Hajmohammadi, Iman Toghræi, "Optimal design and thermal performance improvement of a double-layered microchannel heat sink by introducing Al₂O₃ nano-particles into the water", *PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS*, Vol. 505, Num. 0, Page 328-344, April 2018,
- 19 Mohammadreza Hajmohammadi, "Design and analysis of multi-scale annular fins attached to a pin fin", *INTERNATIONAL JOURNAL OF REFRIGERATION-REVUE INTERNATIONALE DU FROID* , Vol. 88, Num. 0, Page 16-23, December 2017,
- 20 Mohammadreza Hajmohammadi, "Optimal design of tree-shaped inverted fins", *INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER*, Vol. 116, Num. 0, Page 1352-1360, October 2017,
- 21 Mohammadreza Hajmohammadi, "Introducing a Psi-shaped cavity for cooling a heat generating medium", *INTERNATIONAL JOURNAL OF THERMAL SCIENCES*, Vol. 121, Num. 0, Page 204-212, August 2017,
- 22 Mohammadreza Hajmohammadi, Pedram Aghajannezhad, S.S. Abolhassani, M. Parsaee, "An integrated system of zinc oxide solar panels, fuel cells, and hydrogen storage for heating and cooling applications", *INTERNATIONAL JOURNAL OF HYDROGEN ENERGY*, Vol. 42, Num. 31, Page 19683-19694, August 2017,
- 23 Mohammadreza Hajmohammadi, "Cylindrical Couette flow and heat transfer properties of nanofluids; single-phase and two-phase analyses", *JOURNAL OF MOLECULAR LIQUIDS*, Vol. 240, Num. 0, Page 45-55, May 2017,
- 24 Mohammadreza Hajmohammadi, "Assessment of a lubricant based nanofluid application in a rotary system", *ENERGY CONVERSION AND MANAGEMENT*, Vol. 146, Num. 0, Page 78-86, May 2017,
- 25 Mohammadreza Hajmohammadi, "Reply to: Comments on "Detailed analysis for the cooling performance enhancement of a heat source under a thick plate" by Hajmohammadi et al.", *ENERGY CONVERSION AND MANAGEMENT*, Vol. 129, Num. 0, Page 52-53, October 2016,

دروس ارائه شده

#	عنوان درس	توصیف درس	دوره سرفصل ها	درسی
1	Heat Transfer	To internalize the meaning of the terminology and physical principles associated with heat transfer, To delineate pertinent transport phenomena for any process or system involving heat transfer, To use requisite inputs for computing heat transfer rat		Fall 2021

2	Advanced Heat Transfer (Conduction)	Formulation and derivation of the governing equations in heat conduction Mathematical modeling of the systems arising in heat conduction Mathematical solution of the governing equations in heat conduction		Fall 2021
3	Heat Transfer (I)	To internalize the meaning of the terminology and physical principles associated with heat transfer, To delineate pertinent transport phenomena for any process or system involving heat transfer, To use requisite inputs for computing heat transfer rat		Fall 2021
4	Heat Transfer (I)	To internalize the meaning of the terminology and physical principles associated with heat transfer, To delineate pertinent transport phenomena for any process or system involving heat transfer, To use requisite inputs for computing heat transfer rat		Spring 2021
5	Advanced Heat Transfer (Conduction)	Formulation and derivation of the governing equations in heat conduction Mathematical modeling of the systems arising in heat conduction Mathematical solution of the governing equations in heat conduction		Spring 2021
6	Heat Transfer (I)	To internalize the meaning of the terminology and physical principles associated with heat transfer, To delineate pertinent transport phenomena for any process or system involving heat transfer, To use requisite inputs for computing heat transfer rat		Fall 2020
7	Heat Transfer	To internalize the meaning of the terminology and physical principles associated with heat transfer, To delineate pertinent transport phenomena for any process or system involving heat transfer, To use requisite inputs for computing heat transfer rat		Fall 2020
8	Advanced Heat Transfer (Conduction)	Formulation and derivation of the governing equations in heat conduction Mathematical modeling of the systems arising in heat conduction Mathematical solution of the governing equations in heat conduction		Fall 2020