

**17<sup>th</sup> International Heat Pipe Conference**  
**October 14-17, 2013, Kanpur, India**  
**List of papers to be presented (Oral and Poster Mode)**

**Oral Mode Presentation**

#	Author/s	Title
<b>Day 1 (October 14, 2013): Keynote Lecture #1</b>		
KN1	Manfred Groll, Germany	Heat Pipe Science and Technology: A Historical Review
<b>Day 1 (October 14, 2013): Session #1: Fundamentals/ Transport Phenomena (05 Papers)</b>		
1 (7)	Vyas Srinivasan and Sameer Khandekar	Motion of an Isolated Liquid Plug Inside a Dry Circular Capillary
2 (21)	Manoj Rao, Frédéric Lefèvre, Jocelyn Bonjour and Sameer Khandekar	Thermally induced Two-Phase Oscillating flow in a Capillary Tube: Theoretical and Experimental Investigations
3 (49)	Karthik Remella Siva Rama, Frank Gerner and Ahmed Shuja	Investigation of Entrainment Through Folded Porous Metallic Mesh Screens
4 (57)	Balkrishna Mehta and Sameer Khandekar	Infrared Thermography of Pulsating Taylor Bubble Train Flow in a Mini-Channel
5 (87)	Jean Antoine Gruss, Jean Dijon, Adeline Fournier, Rémi Bertossi, Philippe Marty and Nadia Caney	Enhancement of Two-Phase Boiling by Carbon Nanotube Forests
<b>Day 1 (October 14, 2013): Heat Pipes and Thermosyphons, Including Special Passive Structures Session #2 (05 Papers) and Session #3: (03 Papers)</b>		
6 (26)	Stéphane Lips and Frederic Lefevre	An Analytical Heat Pipe Model to Estimate the Fundamental Properties of a Capillary Structure
7 (50)	Masahiro Kuroda, Je-Young Chang, Paul Gwin, Rajiv Mongia, Choong-Un Kim, Gerald Cabusao, Kazuhiko Goto and Masataka Mochizuki	Development of Aluminum-Water Heat Pipes
8 (54)	Julia Fransozi Carneiro, Kênia W. Milanez, Fernando Henrique Milanese and Márcia B. H. Mantelli	Experimental Study of a Two-Phase Closed Thermosyphon Charged with an Immiscible Mixture
9 (61)	L. P. Grakovich, M. L. Rabetsky, L. L. Vasiliev, L. L. Vasiliev Jr., S. P. Bogdanovich, S. S. Pesetskii	Polymer Flat Loop Thermosyphons
10 (62)	Abhishek Basak, I.V. Dulera, P.K. Vijayan and K.K. Vaze	High Temperature Heat Pipes and Thermosyphons for Compact High Temperature Reactor (CHTR)
11 (81)	Kate Smith, Samuel Siedel, Anthony Robinson and Roger Kempers	Visual Study of Fluid Dynamics in Both Wicked and Wickless Transparent Heat Pipes
12 (82)	Sauro Filippeschi and Alessandro Franco	Experimental Analysis of the Instabilities Effect on the Thermal Performance of a Closed Loop Two-Phase Thermosyphon
13 (123)	C. Figus, M. Pauilhiac, S. Arnaud, A. Larue	Development and Test of a "Two-Phase" Structure
<b>Day 2 (October 15, 2013): Keynote Lecture #2</b>		
KN2	N. Prahalad Rao, India	Indian Space Mission and Advanced Heat Pipe Technologies

**Day 2 (October 15, 2013): Loop Heat Pipes/Capillary Pumped Loops**
**Session #4 (04 Papers) and Session #5 (05 Papers)**

14 (11)	Nicolas Blet, Vincent Ayel, Yves Bertin, Cyril Romestant and Vincent Platel	Transient Modeling of CPL for Terrestrial Application, Part A: Formalism & Influence of Gravity on the CPL Behavior
15 (12)	Nicolas Blet, Vincent Ayel, Yves Bertin, Cyril Romestant and Vincent Platel	Transient modeling of CPL for Terrestrial Application, Part B: Do we need a Transient Reservoir Model?
16 (19)	Benjamin Siedel, Valérie Sartre and Frédéric Lefèvre	Two-Dimensional Analytical Model of a Loop Heat Pipe Evaporator
17 (63)	Safouène Ouenzerfi, Thibaut Barreteau, Valerie Sartre and Jocelyn Bonjour	Experimental Comparison of Loop Heat Pipe Performance with Various Evaporator Designs
18 (98)	Masahito Nishikawara and Hosei Nagano	Evaporator Heat-Transfer Performance of a Loop Heat Pipe with Low Thermal Conductivity Wicks
19 (104)	Vincent Dupont, Jean-Claude Legros, Stéphane Van Oost and Laurent Barremaecker	Experimental Investigations of a CPL Pressurized with NCG Inside a Centrifuge up to 10 G.
20 (105)	Vincent Dupont, Stéphane Van Oost, Laurent Barremaecker and Sébastien Nicolau	Railways Qualification Tests of Capillary Pumped Loop on a Train.
21 (116)	V. G. Pastukhov, Yu. F. Maydanik	Development and Investigation of an Improved LHP-PHP Heat-Transfer System
22 (117)	M. A. Chernysheva, S. I. Yushakova, Yu. F. Maydanik	Research on Operating Parameters of Copper-Water Loop Heat Pipes with Flat Evaporator

**Day 2 (October 15, 2013): Space and Aerospace Related Topics and Applications, including MHP/LHP/CPL**
**Session #6 (05 Papers) and #7 (05 papers)**

23 (78)	Hiroki Nagai, Hiromichi Tamamura, Hosei Nagano and Hiroyuki Ogawa	Experimental Study on Startup Behavior Considering Gravity Effect of a Miniature Loop Heat Pipe
24 (69)	Abhijit A. Adoni, Amrit Ambirajan, Jasvanth V. S., Dinesh Kumar and Pradip Dutta	Effect of Working Fluid on 3-Port CPL Performance: An Experimental Investigation
25 (95)	Saleem M Basha, Lalit K Bansal, Saptarshi Basu and Amrit Ambirajan	Performance Analysis and Bubble Visualization within the Evaporator of a Loop Heat Pipe
26 (1)	Kara Walker, Calin Tarau and William Anderson	Grooved and Self-Venting Arterial Heat Pipes for Space Fission Power
27 (39)	Siyuan Chen, Bangcheng Ai, Jijun Yu and Wei Qu	The Application of High Temperature Heat Pipe Technique on Hypersonic Vehicle Thermal Protection
28 (65)	Kleber Paiva, Marcia Mantelli, Gustavo Nuernberg and Juan Pablo Florez	Mini Heat Pipes Experiments Under Microgravity Conditions. What Have We Learned?
29 (84)	D. R. Veerasha, Ch. Simhachal Rao, M. K. Shailandran, S. G. Barve, Dinesh Kumar and Anand Kumar Sharma	Application of Flat Plate Heat Pipe for Cooling Spacecraft Electronics
30 (106)	K. Goncharov, A. Golikov	10 Years Experience of Loop Heat Pipes operation on board "YAMAL-200" Satellite.
31 (107)	K. Goncharov, O. Rassalov, A. Khemelnitsky	Carbon Fiber Panel with Aluminum Heat Pipes
32 (115)	Atsushi Okamoto, Makiko Ando, Hiroyuki Sugita	Initial Evaluation of On-Orbit Experiment of Flat-Plate Heat Pipe

**Day 3 (October 16, 2013): Keynote Lecture #3**

KN3	Vadim Nikolayev	Oscillating Menisci and Liquid Films at Evaporation/Condensation
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**Day 3 (October 16, 2013): Pulsating/Oscillating Heat Pipes**

**Session #8 (04 Papers) and Session #9 (05 Papers)**

33 (10)	V. K. Karthikeyan, Sameer Khandekar and B. C. Pillai	Infrared Thermography of a Closed Loop Pulsating Heat Pipe
34 (15)	Philippe Gully, Fabien Bonnet, Vadim Nikolayev, Nicolas Luchier and Trung Quan Tran	Evaluation of the Vapor Thermodynamic State in PHP
35 (17)	Vincent Ayel, Cyril Romestant, Yves Bertin, Vincenzo Manno and Sauro Filippeschi	Visualization of Flow Patterns in Flat Plate Pulsating Heat Pipe: Influence of Hydraulic Behaviour on Thermal Performances
36 (22)	Nicolas Chauris, Jean-François Bonnenfant, Vincent Ayel, Cyril Romestant and Yves Bertin	About the Relevance of Local IR Visualization on Tube Walls of Pulsating Heat Pipes: A Modeling Investigation
37 (42)	Zhihu Xue, Minghui Xie, Wei Qu, Jijun Yu and Wei Li	Experimental Investigation of Closed Loop Pulsating Heat Pipe Using Ammonia Fluid: Effect of Different Turns and Inclination Angles
38 (46)	Nandan Saha, P. K. Sharma and P. K. Das	An Experimental Investigation on the Performance of Closed Loop Pulsating Heat Pipe
39 (73)	Mauro Mameli, Marco Marengo, Sauro Filippeschi and Vincenzo Manno	Multi-Parametric Investigation on the Thermal Instability of a Closed Loop Pulsating Heat Pipe
40 (79)	Hiroki Nagai, Takamu Kanayama and Takuoru Daimaru	Heat Transfer Performance of Oscillating Heat Pipe by Difference of Surface Characteristics
41 (101)	Naoko Iwata, Hiroyuki Ogawa and Yoshiro Miyazaki	Visualization of Oscillating Heat Pipe under Microgravity

**Day 4 (October 17, 2013): Keynote Lecture #4**

KN4	Masataka Mochizuki	Heat Pipes: Evolution of Endless Application Opportunities
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**Day 4 (October 17, 2013): Terrestrial Applications and Related Topics**

**Session #10 (04 Papers) and Session #11 (05 Papers)**

42 (3)	Shigeki Hirasawa	Transient Heat Transfer Characteristics of Inclined Loop Heat Pipe for Solar Collector with Changing Input Solar Heat Flux
43 (4)	Mathieu Habert and Bruno Agostini	Air-to-Air Thermosyphon Heat Exchanger for Cabinet Cooling
44 (8)	Masataka Mochizuki, Thang Nguyen, Koichi Mashiko, Yuji Saito, Shahed Ahamed, Randeep Singh and Thanh Long Phan	Ultra-Thin High Performance Heat Pipe for Thin and Light Portable Computing Devices
45 (16)	Benjamin Reul, Tobias Düpmeier and Peter Stephan	Experimental Study of a Loop Heat Pipe System for Automotive Exhaust Gas Heat Recovery
46 (38)	Randeep Singh, Masataka Mochizuki, Yuji Saito, Tadao Yamada, Thang Nguyen and Tien Nguyen	Loop Heat Pipe Applications in Automotive Thermal Control
47 (70)	Amit Sharma, Sanjeev Jain and Subhash Kaushik	U-Shaped Heat Pipe Heat Exchanger for Air-Conditioning Applications

48 (99)	Luis Alonso Betancur Arboleda and Farid Chejne Janna	Evaporator Using Heat Pipe Heat Exchanger for a Heat Recovery System
49 (113)	Joon Hong Boo, Jae Hyuk Shin, Seung Shin Yi	Cooling of a Concentrated Photovoltaic Cell Using Heat Pipes
50 (121)	Rudi Kulenovic, Rainer Mertz, Steven Hartmann	Feasibility Study on the Thermal Management of Inductive Distance Sensors by a Heat Pipe Cooling System

**Poster Mode Presentation**

**Poster Session #1 and #2**

**(All Posters will be displayed together and will remain displayed for the entire conference duration)**

51 (5)	Jed Mansouri, Samah Maalej and Mohamed Chaker Zaghdoudi	Experimental and Theoretical Analysis of Flows and Heat Transfer Within Grooved Flat Mini Heat Pipes
52 (9)	Thomas Albertin, Jerome Coulloux and Maxime Louchart	Atherm: A Loop Heat Pipe European Industrial New Manufacturer
53 (13)	Romain Hodot, Valérie Sartre, Frédéric Lefevre and Claude Sarno	3D Modeling and Optimization of a Loop Heat Pipe Evaporator
54 (14)	Ashutosh Singh, Ashok Satapathy and Pooja Jhunjhunwala	Numerical Analysis of Performance of Closed-Loop Pulsating Heat Pipe
55 (18)	Kamlesh Kumar Baraya	Application of Heat Pipes in Satellites
56 (20)	A. Brusly Solomon, K. Ramachandran, B. C. Pillai and V. K. Karthikeyan	Experimental and Numerical Studies of a Heat Pipe
57 (23)	Riadh Boubaker, Vincent Platel and Sébastien Nicolau	Dynamic Model of Phase Change in the CPL Evaporator
58 (29)	Natalia Savchenkova and Vladimir Sasin	Conditions of Working Ability of Pulsating Pump of Heat action
59 (32)	Yaser Mollaei Barzi and Mohsen Assadi	Experimental and Theoretical Investigation of a Loop Heat Pipe/THERMOSYPHON Behavior in a Heat Recovery System Application
60 (34)	Pramod Pachghare and Ashish Mahalle	Thermal Analysis and Flow Visualization of Closed Loop Pulsating Heat Pipe using Pure and Binary Working Fluid
61 (44)	Sandesh Chougule, Santosh Kumar Sahu, Ashok Pise and M. M. Narke	Performance Enhancement of Two Phase Thermosyphon Solar Water Heater Using Surfactant
62 (45)	Purna Chandra Mishra, Manasee Mishra, Manoj Utkamanal and Susant Sahu	Experimental Investigation on Thermo-mechanical Characteristics of AlSiC <sub>p</sub> Metal Matrix Composite for Heat Pipes
63 (58)	Basant Singh Sikarwar, K. Muralidhar and Sameer Khandekar	Recent Developments in Modeling of Dropwise Condensation Process
64 (66)	Alexandr Gershuni, Vladilen Zaripov and Volodymyr Baturkin	Structural, Thermo-Physical and Mechanical Characteristics of Metal Fiber Wicks of Modern Heat Pipes
65 (68)	S. Kesav Kumar and S. N. Sridhara	Thermal Network Model to Predict Temperature in Heat Sink Assisted Flat Heat Pipes

66 (71)	Arpana Prasad, A. R. Anand, Raghavendra Kumar, V. Ramakrishnan, Amrit Ambirajan, Dinesh Kumar and Pradip Dutta	Measurement of Thermal Conductivity, Pore-Size, Permeability and Coefficient of Thermal Expansion of a Porous Nickel Wick for LHPS
67 (77)	Adel Benselama, Cyril Romestant, Yves Bertin and Vincent Ayel	Investigation of Thermogravity/Thermocapillary Effects in Rotating Heat Pipes: Prediction of Instabilities at the Liquid Film
68 (80)	Kate Smith, Samuel Siedel, Anthony Robinson and Roger Kempers	Investigation of Thermosyphon Performance with Changing Adiabatic Section Geometry
69 (83)	Kênia Warmling Milanez, Fernando H. Milanez and Marcia B. H. Mantelli	Development of a Continuous Cooking Oven with the Two-Phase Thermosyphon Technology
70 (85)	Bishnu Mahapatra, Himanshu Poonia, Nandan Saha and Prasanta Das	Important Non Dimensional Numbers for Pulsating Heat Pipes, their Significance and Inter Relationship
71 (88)	Yoshiro Miyazaki, Naoko Iwata and Hiroyuki Ogawa	Principle of Oscillating Heat Pipe
72 (89)	Pankaj Srivastava, Sameer Khandekar, J. K. Bajpai and A. K. Sahani	An Experimental Investigation of Phase Change Material (PCM) for Heat Management of Instruments
73 (91)	Hiroyuki Ogawa, Naoko Iwata, Takeshi Takashima and Tadayuki Takahashi	Use of Quick Couplings in Loop Heat Pipe
74 (100)	Yasuko Shibano and Hiroyuki Ogawa	Thermal Performance of Re-Entrant Groove Heat Pipe: Dependence on Orientation and Temperature
75 (103)	D. R. Veerasha, M. K. Shailandran, Ch. Rama Kishore, S. G. Barve, Dinesh Kumar and Anand Kumar Sharma	Optimization of Heat Pipe Panel for Communication Spacecraft
76 (108)	K. Goncharov, V. Antonov	Experience of Space Application of Axial Groove Heat Pipes with $\Omega$ -Shape Grooves
77 (110)	Bhawna Verma, V. L. Yadav, K. K. Srivastava	Heat Transfer Studies in a Closed Loop Pulsating Heat Pipe
78 (111)	Jeehoon Choi, Byungho Sung, Yunkeun Lee, Minwhan Seo, Xuan Hung Nguyen, Chulju Kim	Compact Two-Phase Loop Cooling System Applications for High Density Power Computer Workstation and Servers
79 (114)	Sang Min Kim, Yong Heak Kang, Joon Hong Boo	Thermal Performance of a High-Temperature Solar Absorber Embedded with Liquid Metal Heat Pipes
80 (118)	E. Turrión, J. Meléndez, D. Mishkinis and A. Torres	Ethane Two-Phase Thermal Control for Cryogenics Applications
81 (120)	B. S. Bhullar, D. Gangacharyulu, S. K. Das	Thermal Performance of Mesh Wicked Heat Pipe using $\text{Al}_2\text{O}_3$ Nanofluids
82 (122)	P. Di Marco, S. Filippeschi	Electrical Force Effect on a Capillary Loop Two-Phase Thermosyphon
83 (126)	Dong Soo Jang, Eun-Ji Lee, Yonghee Jang, Yongchan Kim	Performance Characteristics of Flat Plate Pulsating Heat Pipes with Mini- and Micro-channels
84 (127)	Wei Qu, Ai Bangcheng, Yu Jijun	Precise Differential Mechanism, Sodium Charging Equipment and Heat Pipe Performance

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