

# Cosar Trevi±o

## List of Publications by Year in descending order

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136  
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citations

393982

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times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Non-isothermal effects in the slippage condition and absolute viscosity for an electroosmotic flow. European Journal of Mechanics, B/Fluids, 2022, 93, 29-41.	1.2	9
2	Magneto hydrodynamic mixed convection and entropy generation analysis of Al <sub>2</sub> O <sub>3</sub> -water nanofluid past a confined circular cylinder. International Journal of Mechanical Sciences, 2022, 230, 107542.	3.6	12
3	Experimental study of external lateral flow effects on turbulent isothermal upward/downward slot jets impinging inside an open cavity. International Journal of Mechanical Sciences, 2021, 198, 106343.	3.6	2
4	Vortex induced vibrations of a pivoted finite height cylinder at low Reynolds number. Physics of Fluids, 2021, 33, .	1.6	6
5	Three-dimensional deflecting oscillation of turbulent planar opposed jets confined in an open cavity under crossflow. Physics of Fluids, 2020, 32, 105101.	1.6	2
6	Numerical study of magneto hydrodynamic mixed convection and entropy generation of Al <sub>2</sub> O <sub>3</sub> -water nanofluid past a confined circular cylinder. International Journal of Mechanical Sciences, 2022, 230, 107542.	1.1	24
7	Low temperature first ignition of n-butane. Combustion Theory and Modelling, 2019, 23, 1150-1168.	1.0	3
8	Numerical investigation on buoyancy and inclination effects on transient mixed convection in a channel with discretely heated plane symmetric contraction-expansions. International Journal of Thermal Sciences, 2019, 146, 106056.	2.6	3
9	Experimental investigation of opposed rectangular impinging jets confined in an open cavity with vertical crossflow in a rectangular duct. International Journal of Heat and Mass Transfer, 2019, 145, 118745.	2.5	6
10	Experimental study of buoyancy and inclination effects on transient mixed convection heat transfer in a channel with two symmetric open cubic cavities with prescribed heat flux. International Journal of Thermal Sciences, 2019, 140, 71-86.	2.6	8
11	Numerical study of buoyancy and inclination effects on transient mixed convection in a channel with two facing cavities with discrete heating. International Journal of Mechanical Sciences, 2019, 155, 295-314.	3.6	18
12	Experimental investigation of unsteady laminar mixed convection from a horizontal heated cylinder in contra-flow: Buoyancy and confinement effects on the three-dimensional heat transfer response. European Journal of Mechanics, B/Fluids, 2019, 75, 165-179.	1.2	2
13	Stereoscopic TR-PIV measurements of mixed convection flow in a vertical channel with an open cavity with discrete heating. International Journal of Mechanical Sciences, 2019, 150, 427-444.	3.6	13
14	Transient mixed convection in a channel with two facing discretely heated semicircular cavities: Buoyancy, inclination angle, and channel aspect ratio effects. Experimental Heat Transfer, 2019, 32, 337-363.	2.3	5
15	Mathematical model of tidal water transport by a partial blockage of a coastal lagoon. Applied Mathematical Modelling, 2018, 60, 592-605.	2.2	0
16	A Reduced Kinetic Mechanism for the Combustion of n-Butanol. Energy & Fuels, 2018, 32, 867-874.	2.5	13
17	Model of the low-temperature heat release and ignition of n-butanol. Combustion Theory and Modelling, 2018, 22, 1176-1193.	1.0	3
18	Experimental study on laminar flow over two confined isothermal cylinders in tandem during mixed convection. International Journal of Thermal Sciences, 2017, 115, 176-196.	2.6	18

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19	Experimental study of mixed convection heat transfer in a vertical channel with a one-sided semicylindrical constriction with prescribed heat flux. <i>International Journal of Heat and Fluid Flow</i> , 2017, 67, 155-167.	1.1	4
20	Numerical investigation of mixed convection heat transfer from two isothermal circular cylinders in tandem arrangement: buoyancy, spacing ratio, and confinement effects. <i>Theoretical and Computational Fluid Dynamics</i> , 2017, 31, 159-187.	0.9	16
21	A reduced reaction mechanism for the combustion of n-butane. <i>Combustion and Flame</i> , 2017, 175, 27-33.	2.8	46
22	Transient mixed convection heat transfer for opposing flow from two discrete flush-mounted heaters in a rectangular channel of finite length: Effect of buoyancy and inclination angle. <i>International Journal of Thermal Sciences</i> , 2016, 104, 357-372.	2.6	7
23	Unsteady mixed convection heat transfer from two confined isothermal circular cylinders in tandem: Buoyancy and tube spacing effects. <i>International Journal of Heat and Fluid Flow</i> , 2016, 60, 12-30.	1.1	13
24	Effects of buoyancy and inclination for opposing mixed convection in a symmetrical heated duct with a plane symmetric sudden contractionâ€”expansion. <i>Experimental Thermal and Fluid Science</i> , 2016, 74, 324-338.	1.5	4
25	Steady and oscillatory laminar opposing mixed convection in a vertical channel of finite length subjected to symmetrical isothermal discrete heat sources. <i>Physics of Fluids</i> , 2015, 27, 063604.	1.6	8
26	Super free fall of an inviscid liquid through interconnected vertical pipes. <i>Europhysics Letters</i> , 2015, 112, 14002.	0.7	1
27	Numerical study on buoyancy and inclination effects on transient laminar opposing mixed convection in rectangular channels with symmetric and discrete heating. <i>International Journal of Heat and Mass Transfer</i> , 2015, 84, 766-785.	2.5	9
28	Unsteady laminar mixed convection heat transfer from a horizontal isothermal cylinder in contra-flow: Buoyancy and wall proximity effects on the flow response and wake structure. <i>Experimental Thermal and Fluid Science</i> , 2014, 52, 30-46.	1.5	13
29	Symmetry Breaking Instability in a Mixed Convection Problem. <i>Environmental Science and Engineering</i> , 2014, , 3-15.	0.1	1
30	Stereoscopic particle image velocimetry measurements of the three-dimensional flow field of a descending autorotating Mahogany seed ( <i>Swietenia macrophylla</i> ). <i>Journal of Experimental Biology</i> , 2013, 216, 2017-30.	0.8	21
31	Transient heating and entropy generation of a fluid inside a large aspect ratio cavity. <i>International Journal of Thermal Sciences</i> , 2013, 64, 220-231.	2.6	8
32	Conjugate Heating Inside a Large Aspect Ratio Cavity with Finite Conductive Walls. <i>Journal of Thermophysics and Heat Transfer</i> , 2013, 27, 679-691.	0.9	0
33	Buoyancy Effect on the Wake of a Confined Circular Cylinder during Opposing Laminar Mixed Convection Heat Transfer. <i>Applied Mechanics and Materials</i> , 2013, 390, 675-679.	0.2	0
34	Natural Convection and Entropy Generation in a Large Aspect Ratio Cavity with Walls of Finite Thickness. <i>Environmental Science and Engineering</i> , 2013, , 309-320.	0.1	1
35	Thermal nonlinear oscillator in mixed convection. <i>Physical Review E</i> , 2011, 84, 046310.	0.8	9
36	The secondary splitting of zero-gradient points in a scalar field. <i>Journal of Engineering Mathematics</i> , 2011, 71, 81-95.	0.6	11

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37	Catalytic ignition of very lean mixtures of hydrogen. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 8610-8618.	3.8	8
38	Modeling of the catalytic removal of CO and NO in dry combustion gases. <i>AICHE Journal</i> , 2010, 56, 801-809.	1.8	1
39	Variable Thermal Conductivity and Perforation Effects on a Heat-Conducting Plate. <i>Journal of Thermophysics and Heat Transfer</i> , 2010, 24, 665-669.	0.9	2
40	Auto-ignition of methane-air mixtures flowing along an array of thin catalytic plates. <i>Combustion Theory and Modelling</i> , 2010, 15, 47-59.	1.0	0
41	Reduced kinetic mechanism for high-temperature propane ignition. <i>International Journal of Chemical Kinetics</i> , 2008, 40, 721-729.	1.0	4
42	Transient laminar opposing mixed convection in a differentially and asymmetrically heated vertical channel of finite length. <i>International Journal of Heat and Mass Transfer</i> , 2008, 51, 5991-6005.	2.5	22
43	Theoretical analysis of the direct decomposition of methane gas in a laminar stagnation-point flow: CO <sub>2</sub> -free production of hydrogen. <i>International Journal of Hydrogen Energy</i> , 2008, 33, 7419-7426.	3.8	6
44	The role of duct thickness on the quenching process of premixed flame propagation. <i>Combustion Theory and Modelling</i> , 2008, 12, 115-133.	1.0	5
45	Heat Transfer with a Step in Surface Temperature. <i>Journal of Thermophysics and Heat Transfer</i> , 2008, 22, 118-121.	0.9	0
46	Ignition and combustion of diluted hydrogen mixtures in a flow past an array of catalytic wires. <i>Combustion Theory and Modelling</i> , 2007, 11, 483-499.	1.0	3
47	Particle image velocimetry measurements for opposing flow in a vertical channel with a differential and asymmetric heating condition. <i>Experimental Thermal and Fluid Science</i> , 2007, 32, 262-275.	1.5	15
48	Theoretical analysis for the heterogeneous decomposition of hydrogen sulfide to hydrogen on an iron-metallic plate in a laminar stagnation-point flow. <i>Applied Surface Science</i> , 2006, 253, 2327-2335.	3.1	4
49	Transient Natural Convective Conjugate Cooling Mechanism in Vertical Fins. <i>Journal of Thermophysics and Heat Transfer</i> , 2006, 20, 422-428.	0.9	2
50	Determination of the adsorption and desorption parameters for ethene and propene from measurements of the heterogeneous ignition temperature. <i>Combustion and Flame</i> , 2005, 142, 107-116.	2.8	10
51	The influence of the variable thermal conductivity of a vertical fin on a laminar-film condensation process. <i>Heat and Mass Transfer</i> , 2004, 40, 383-391.	1.2	2
52	Asymptotic and numerical transient analysis of the free convection cooling of a vertical plate embedded in a porous medium. <i>Heat and Mass Transfer</i> , 2004, 40, 593.	1.2	3
53	Oscillatory heat transfer process in a vertical strip immersed in a porous medium. <i>Heat and Mass Transfer</i> , 2004, 40, 937-942.	1.2	1
54	Transient nitrogen injection in a cylindrical porous cap initially filled with natural gas. <i>Journal of Petroleum Science and Engineering</i> , 2004, 43, 1-12.	2.1	0

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55	Imbibition in a Heleâ€“Shaw cell under a temperature gradient. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 324, 14-21.	0.9	10
56	Analysis of a forced laminar film condensation including finite longitudinal heat conduction effects. Heat and Mass Transfer, 2003, 39, 489-498.	1.2	4
57	Natural convection in a vertical strip immersed in a porous medium. European Journal of Mechanics, B/Fluids, 2003, 22, 545-553.	1.2	4
58	Determination of Adsorption and Desorption Parameters from Ignition Temperature Measurements in Catalytic Combustion Systems. Journal of Physical Chemistry B, 2003, 107, 2262-2274.	1.2	16
59	Imbibition Driven by a Temperature Gradient. Journal of the Physical Society of Japan, 2003, 72, 979-982.	0.7	8
60	Natural Convective Conjugate Cooling Mechanism in Vertical Fins. Journal of Thermophysics and Heat Transfer, 2003, 17, 396-401.	0.9	2
61	Heat Transfer Analysis on a Moving Flat Sheet Emerging into Quiescent Fluid. Journal of Thermophysics and Heat Transfer, 2002, 16, 373-378.	0.9	7
62	Conjugate free convection along a thin vertical plate with internal nonuniform heat generation in a porous medium. Heat and Mass Transfer, 2002, 38, 631-638.	1.2	10
63	Transient ignition and combustion of diluted hydrogen/air mixtures by a thin catalytic wire. Proceedings of the Combustion Institute, 2002, 29, 981-988.	2.4	5
64	Conjugated heat transfer in circular ducts with a power-law laminar convection fluid flow. International Journal of Heat and Mass Transfer, 2002, 45, 655-666.	2.5	22
65	The conjugate heat transfer from an internal heated small strip in a forced laminar flow. Heat and Mass Transfer, 2001, 37, 485-491.	1.2	2
66	The conjugate conductionâ€“natural convection heat transfer along a thin vertical plate with non-uniform internal heat generation. International Journal of Heat and Mass Transfer, 2000, 43, 2739-2748.	2.5	44
67	Laminar film condensation along a vertical fin. International Journal of Heat and Mass Transfer, 2000, 43, 2859-2868.	2.5	15
68	Autoignition of hydrogen/air mixtures by a thin catalytic wire. Proceedings of the Combustion Institute, 2000, 28, 1359-1364.	2.4	14
69	Gravity induced granular flow measurements in a 2D silo with a lateral bottom exit. Physics Letters, Section A: General, Atomic and Solid State Physics, 2000, 273, 109-116.	0.9	15
70	Graetz Problem for the Conjugated Conduction-Film Condensation Process. Journal of Thermophysics and Heat Transfer, 2000, 14, 96-102.	0.9	5
71	Catalytic combustion of dry carbon monoxide by external power activation. Surface Science, 2000, 449, 61-74.	0.8	8
72	Effect of longitudinal heat conduction on the catalytic ignition of carbon monoxide in a boundary layer. Combustion Theory and Modelling, 2000, 4, 173-187.	1.0	1

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73	An asymptotic analysis of catalytic ignition in a stagnation-point flow. <i>Combustion Theory and Modelling</i> , 1999, 3, 469-477.	1.0	10
74	Catalytic ignition of dry carbon monoxide in a stagnation-point flow. <i>Combustion and Flame</i> , 1999, 119, 505-512.	2.8	6
75	Simplified model for the prediction of ozone generation in polluted urban areas with continuous precursor species emissions. <i>Atmospheric Environment</i> , 1999, 33, 1103-1110.	1.9	7
76	Analysis for the catalytic ignition of methane in a stagnation-point flow. <i>AIChE Journal</i> , 1999, 45, 567-573.	1.8	10
77	On a universal description for the fracture patterns in rotating cohesive granular media. <i>Europhysics Letters</i> , 1999, 45, 269-273.	0.7	2
78	Natural convective cooling of a horizontal heat conducting plate facing up in an otherwise adiabatic cavity. <i>International Journal of Heat and Mass Transfer</i> , 1998, 41, 1983-1991.	2.5	2
79	Experimental study of the tracer in the granular flow in a 2D silo. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1998, 249, 63-68.	0.9	10
80	Velocity field measurements in granular gravity flow in a near 2D silo. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1998, 250, 111-116.	0.9	72
81	Asymptotic analysis of axisymmetric drop spreading. <i>Physical Review E</i> , 1998, 58, 4478-4484.	0.8	11
82	Influence of the aspect ratio of a drop in the spreading process over a horizontal surface. <i>Physical Review E</i> , 1998, 58, 4473-4477.	0.8	4
83	Laminar Film Condensation on a Thin Finite Thickness Plate. <i>Journal of Thermophysics and Heat Transfer</i> , 1997, 11, 119-120.	0.9	6
84	Asymptotic Analysis of the Transient Conjugate Heat Transfer Process Between Two Forced Counterflowing Streams. <i>SIAM Journal on Applied Mathematics</i> , 1997, 57, 577-596.	0.8	3
85	Film condensation induced by a natural convective flow: steady-state analysis. <i>International Journal of Heat and Mass Transfer</i> , 1997, 40, 1279-1289.	2.5	10
86	The classical problem of convective heat transfer in laminar flow over a thin finite thickness plate with uniform temperature at the lower surface. <i>International Journal of Heat and Mass Transfer</i> , 1997, 40, 3577-3580.	2.5	21
87	Laminar film condensation on a thin finite thickness plate. <i>Journal of Thermophysics and Heat Transfer</i> , 1997, 11, 119-121.	0.9	0
88	The effects of displacement induced by thermal perturbations on the structure and stability of boundary-layer flows. <i>Theoretical and Computational Fluid Dynamics</i> , 1996, 8, 57-72.	0.9	3
89	Steady-state analysis of the conjugate heat transfer between forced counterflowing streams. <i>Journal of Thermophysics and Heat Transfer</i> , 1996, 10, 476-483.	0.9	6
90	Conjugate natural convection heat transfer between two fluids separated by a horizontal wall: steady-state analysis. <i>Heat and Mass Transfer</i> , 1996, 31, 353-358.	1.2	5

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91	Heat transfer across a vertical wall separating two fluids at different temperatures. International Journal of Heat and Mass Transfer, 1996, 39, 2231-2241.	2.5	12
92	Numerical study of the natural convective cooling of a vertical plate. Heat and Mass Transfer, 1996, 32, 89-95.	1.2	11
93	Transient conjugate condensation process on a vertical plate with finite thermal inertia. International Journal of Heat and Mass Transfer, 1996, 39, 2221-2230.	2.5	4
94	Longitudinal heat conduction effects on a vertical thin plate in a steady laminar condensation process. International Journal of Heat and Fluid Flow, 1996, 17, 517-525.	1.1	2
95	Experimental evidence of density fluctuations in two-dimensional bins. Physics Letters, Section A: General, Atomic and Solid State Physics, 1996, 223, 105-110.	0.9	9
96	Ignition of catalytic reactions in a vertical wall immersed in a combustible gas. Proceedings of the Combustion Institute, 1996, 26, 1797-1804.	0.3	5
97	Mixing layer ignition of hydrogen. Combustion and Flame, 1995, 103, 129-141.	2.8	16
98	Axisymmetrical rotation of a sand heap. Physical Review E, 1995, 51, 4621-4625.	0.8	14
99	Numerical solution of the conjugate heat transfer between forced counterflowing streams. Heat and Mass Transfer, 1995, 30, 297-302.	1.2	7
100	Effects of longitudinal heat conduction of a vertical thin plate in a natural convective cooling process. Heat and Mass Transfer, 1994, 29, 195-204.	0.2	7
101	Analysis of the thermal diffusion effects on the ignition of hydrogen-air mixtures in the boundary layer of a hot flat plate. Combustion and Flame, 1994, 96, 293-303.	2.8	15
102	Reduced kinetic mechanism for methane ignition. Proceedings of the Combustion Institute, 1992, 24, 121-127.	0.3	25
103	Boundary layer separation by a step in surface temperature. International Journal of Heat and Mass Transfer, 1992, 35, 2725-2738.	2.5	6
104	The asymptotic structure of hydrogen-air diffusion flames. Combustion and Flame, 1992, 91, 246-256.	2.8	21
105	Asymptotic analysis of the high-temperature ignition of CO/H <sub>2</sub> /O <sub>2</sub> mixtures. Combustion and Flame, 1991, 86, 285-295.	2.8	17
106	LDA measurements in the premixed V flame stabilized in the wake of a flat plate boundary layer. Combustion and Flame, 1991, 85, 505-510.	2.8	14
107	Asymptotic Analysis of the Ignition of Hydrogen by a Hot Plate in a Boundary Layer Flow. Combustion Science and Technology, 1991, 78, 197-216.	1.2	27
108	Pressure gradients due to gas expansion in the boundary layer combustion of a condensed fuel. Heat and Mass Transfer, 1990, 25, 309-319.	0.2	1

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109	Stability analysis of a simplified model of a fluidized bed combustor. <i>Combustion and Flame</i> , 1990, 80, 399-411.	2.8	0
110	Higher-order effects in boundary-layer premixed combustion. <i>Journal of Propulsion and Power</i> , 1990, 6, 237-242.	1.3	3
111	The Influence of the Lewis Numbers of the Reactants on the Asymptotic Structure of Counterflow and Stagnant Diffusion Flames. <i>Combustion Science and Technology</i> , 1989, 64, 243-261.	1.2	56
112	Transient analysis of carbon combustion in stagnation flow. <i>Combustion and Flame</i> , 1989, 75, 281-295.	2.8	3
113	Heterogeneous ignition of coal dust clouds. <i>Combustion and Flame</i> , 1989, 75, 325-342.	2.8	10
114	Analysis of the structure and mechanisms of extinction of a counterflow methanol-air diffusion flame. <i>Combustion and Flame</i> , 1989, 76, 111-132.	2.8	27
115	Critical conditions for carbon combustion. <i>Proceedings of the Combustion Institute</i> , 1988, 21, 211-219.	0.3	1
116	Role of ionizing radiation in chemical evolution studies. <i>International Journal of Radiation Applications and Instrumentation Nuclear Tracks and Radiation Measurements</i> , 1988, 31, 821-823.	0.0	2
117	Applications of radio and radiation chemistry to chemical evolution studies. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 1988, 124, 281-288.	0.7	1
118	Premixed Combustion in Boundary Layers for Moderate Values of the Zeldovich Numbers. <i>Combustion Science and Technology</i> , 1986, 48, 129-149.	1.2	13
119	Catalytic combustion in monolith reactors. <i>Chemical Engineering Science</i> , 1986, 41, 2253-2260.	1.9	7
120	Gas Phase Ignition of a Premixed Combustible by Catalytic and Non-Catalytic Cylindrical Surfaces. <i>Combustion Science and Technology</i> , 1986, 48, 45-63.	1.2	8
121	Catalytic ignition by external energy flux: Steady state analysis. <i>Proceedings of the Combustion Institute</i> , 1985, 20, 1853-1859.	0.3	0
122	Catalytic combustion in stagnation-point flow. <i>Heat and Mass Transfer</i> , 1985, 19, 159-166.	0.2	2
123	The toroidal thermosyphon with known heat flux. <i>International Journal of Heat and Mass Transfer</i> , 1985, 28, 219-233.	2.5	45
124	A steady-state analysis for variable area one- and two-phase thermosyphon loops. <i>International Journal of Heat and Mass Transfer</i> , 1985, 28, 1711-1719.	2.5	37
125	Gas-phase boundary layer ignition on a catalytic flat plate with heat loss. <i>Combustion and Flame</i> , 1985, 61, 39-49.	2.8	24
126	Transient catalytic ignition on a flat plate with external energy flux. <i>AIAA Journal</i> , 1985, 23, 1716-1723.	1.5	7



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127	External heating of a flat plate in a convective flow. International Journal of Heat and Mass Transfer, 1984, 27, 1067-1073.	2.5	29
128	Aerodynamics of Premixed Flames in Flat Plate Boundary Layerst. Combustion Science and Technology, 1984, 38, 293-312.	1.2	1
129	Ignition and Extinction of Catalytic Reactions on a Flat Plate. Combustion Science and Technology, 1984, 38, 113-128.	1.2	18
130	On the influence of the plate thickness on the boundary layer ignition for large activation energies. Combustion and Flame, 1983, 49, 91-100.	2.8	5
131	Gas-Phase Ignition of Premixed Fuel by Catalytic Bodies in Stagnation Flow. Combustion Science and Technology, 1983, 30, 213-229.	1.2	31
132	Effect of prandtl number on boundary layer ignition. Combustion and Flame, 1982, 46, 211-212.	2.8	2
133	Effect of plate thermal resistance on boundary layer ignition. Combustion and Flame, 1981, 43, 121-129.	2.8	6
134	Transient phenomena in boundary layer ignition with finite plate thermal resistance. Proceedings of the Combustion Institute, 1981, 18, 1781-1789.	0.3	2
135	Catalytic Flat Plate Boundary Layer Ignition. Combustion Science and Technology, 1981, 26, 245-251.	1.2	27
136	Unsteady Mixed Convection from Two Isothermal Semicircular Cylinders in Tandem Arrangement. , 0, , .		4