

## ***Doc. Dr. Jurij Avsec***

**Personal data:** born 5.4. 1964 in Maribor, Slovenia

**Postgraduate studies:** 1989- University of Maribor, Faculty of Mechanical Engineering,

MS degree 1994 in the field of classical and statistical thermodynamics

PhD degree 1999 in the field of statistical thermodynamics

### **Employment:**

1988-1994 in TAM (manufacturer of diesel engines and trucks) in 1989, where he was involved in the field of diesel engine and combustion.

2003- University of Maribor, Faculty of Mechanical Engineering as Assistant Professor in the field of mechanics

Dr. Jurij Avsec is a Assistant Professor and the member of the Laboratory of Mechanics in the Department of Mechanical Engineering at the University of Maribor in Maribor, Slovenia. His research interests involve equilibrium mechanics, nonequilibrium mechanics, nano and micro mechanics and non-linear vibrational theory. He is the member of AIAA, ASME and EUROMECH Society.

**1.** AVSEC, Jurij, MARČIČ, Milan. The calculation of the thermodynamical properties in the liquid-gas region. *Acta chim. slov.*. [Tiskana izd.], 1999, vol. 46, št. 3, str. 375-388, graf. prikazi. [COBISS.SI-ID 4714262]

JCR IF (2000): 0.161, SE (106/118), chemistry, multidisciplinary

**2.** AVSEC, Jurij, MARČIČ, Milan. Optimiranje motorjev - priprava motorja za elektronsko krmiljenje vbrizgavanja = Optimisation of engines - preparation of an engine for electronic injection control. *Stroj. vestn.*, 1999, letn. 45, št. 12, str. 563-571. [COBISS.SI-ID 5124886]

JCR IF: 0.049, SE (89/98), engineering, mechanical

**3.** AVSEC, Jurij, MARČIČ, Milan. Use of quantum field theory in cryogenics. *High temp. High press.*, 2000, vol. 32, no. 4, str. 413-421. [COBISS.SI-ID 45248513]

JCR IF: 0.34, SE (24/37), thermodynamics (71/91), mechanics (12/21), materials science, characterization & testing

**4.** AVSEC, Jurij, MARČIČ, Milan. Calculation of the speed of sound and other thermophysical properties. *J. thermophys. heat transf.*, January-March 2000, vol. 14, no. 1, str. 39-44.

[COBISS.SI-ID 4728854]

JCR IF: 0.549, SE (13/37), thermodynamics (27/102), engineering, mechanical

**5.** AVSEC, Jurij, MARČIČ, Milan. Influence of multipolar and induction interactions on the speed of sound. *J. thermophys. heat transf.*, October-December 2000, vol. 14, no. 4, str. 496-503. [COBISS.SI-ID 5665814]

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**6.** AVSEC, Jurij, MARČIČ, Milan. Calculation of thermodynamic properties for refrigerants. *High temp. High press.*, 2001, vol. 33, no. 3, str. 319-327. [COBISS.SI-ID 45376769]

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- 7.** AVSEC, Jurij, ZGAGA, Franc, MARČIČ, Milan. Calculation of thermophysical and thermochemical properties during hydrocarbon combustion. *High temp. High press.*, 2002, vol. 34, no. 5. [COBISS.SI-ID 7840790]  
JCR IF: 0.409, SE (29/36), thermodynamics (77/102), mechanics (14/24), materials science, characterization & testing
- 8.** AVSEC, Jurij, MARČIČ, Milan, OBLAK, Maks. Valve gear refinement. *J. mech. des. (1990)*, mar. 2002, vol. 124, str. 86-90. [COBISS.SI-ID 6944534]  
JCR IF: 0.268, SE (68/102), engineering, mechanical
- 9.** AVSEC, Jurij, MARČIČ, Milan. Approach for calculating thermophysical properties with the help of statistical thermodynamics. *J. thermophys. heat transf.*, July-September 2002, vol. 16, no. 3, str. 455-462. [COBISS.SI-ID 7293206]  
JCR IF: 1.052, SE (4/36), thermodynamics (8/102), engineering, mechanical
- 10.** AVSEC, Jurij, MARČIČ, Milan. Calculation of elastic modulus and other thermophysical properties for molecular crystals. *J. thermophys. heat transf.*, July-September 2002, vol. 16, no. 3, str. 463-468. [COBISS.SI-ID 7292950]  
JCR IF: 1.052, SE (4/36), thermodynamics (8/102), engineering, mechanical
- 11.** AVSEC, Jurij, MARČIČ, Milan, LEIPERTZ, Alfred, FRÖBA, Andreas Paul. Velocity of sound of binary mixture R507 and ternary mixture R404A. *J. thermophys. heat transf.*, Jul./Sept. 2003, vol. 17, no. 3, str. 334-339. [COBISS.SI-ID 8124694]  
JCR IF: 0.844, SE (13/39), thermodynamics (18/106), engineering, mechanical
- 12.** AVSEC, Jurij, MARČIČ, Milan, WATANABE, Koichi. Study of Lennard-Jones chains for hydrocarbons. *J. thermophys. heat transf.*, April/June 2004, vol. 18, no 2, str. 243-252. [COBISS.SI-ID 8758294]  
JCR IF (2003): 0.844, SE (13/39), thermodynamics (18/106), engineering, mechanical
- 13.** AVSEC, Jurij, OBLAK, Maks. Thermal conductivity, viscosity and thermal diffusivity calculation for binary and ternary mixtures. *J. thermophys. heat transf.*, July-September 2004, vol. 18, no 3, str. 379-387. [COBISS.SI-ID 8923158]  
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