

Leonel R. Cancino

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*Internal Combustion Engines Laboratory - LABMCI
Mobility Engineering Department - EMB
Federal University of Santa Catarina - UFSC Joinville*

Professional Experience

- 09/2013–Present **Established Professor**, Federal University of Santa Catarina, Campus Joinville.
- 05/2014–Present **Internal Combustion Engines Laboratory**, labmci.ufsc.br, Director.
- 11/2009–12/2012 **Research Scientist**, Fundação Stemmer para Pesquisa, Desenvolvimento e Inovação (FEESC).
- 11/2009–12/2012 **Post-doctoral Research**, Institute for Energy and Materials Processing – Reactive Fluids / University of Duisburg Essen, Duisburg, Germany.
- 11/2009–12/2012 **Post-doctoral Research**, Combustion and Thermal Systems Engineering Laboratory / Federal University of Santa Catarina, Florianópolis, Brazil.
- 01/2011–05/2011 **Post-doctoral Research**, Combustion Chemistry Centre / University of Galway, Ireland.

Education

- 11/2005–08/2009 **Doctor of Engineering / Mechanical Engineering / Thermal Sciences**, Federal University of Santa Catarina, Florianópolis / Brazil.
- 04/2002–09/2005 **Master of Engineering / Mechanical Engineering / Thermal Sciences**, Federal University of Santa Catarina, Florianópolis / Brazil.
- 07/1996–11/2001 **Bachelor of Engineering / Mechanical Engineering**, Francisco de Paula Santander University, Cúcuta / Colombia.

Professional Development

Teaching - Undergraduate courses

- 2013–Present **EMB 5302 - Internal Combustion Engines I**, UFSC Joinville, Automotive Engineering.
- 2013–Present **EMB 5317 - Aerodynamic of Road Vehicles**, UFSC Joinville, Automotive Engineering.
- 2013–2021 **EMB 5328 - Internal Combustion Engines II**, UFSC Joinville, Automotive Engineering.
- 2015–2021 **EMB 5383 - Applied CFD**, UFSC Joinville, Automotive Engineering.
- 2013–2014 **EMB 5412 - Aerospace Propulsion I**, UFSC Joinville, Aerospace Engineering.

Teaching - Graduate courses

- 2019–Present **EMC 410197 - Combustion chemical kinetics - Detailed kinetics mechanisms and thermodynamic databases**, UFSC Florianópolis, Graduate Program in Mechanical Engineering - POSMEC.
- 2020–Present **EMC 410111 - Introduction to Combustion**, UFSC Florianópolis, Graduate Program in Mechanical Engineering - POSMEC.
- 2022–Present **ECM 410035 - Internal Combustion Engines Simulation**, UFSC Joinville, Graduate Program in Mechanical Engineering and Sciences - POSECM.
- 2023–2023 **ECM410062 – Combustion**, UFSC Joinville, Graduate Program in Mechanical Engineering and Sciences - POSECM.

Research

- Experimental **High Pressure Shock Tube**, Ignition delay time measurements.

- Experimental **Rapid Compression Machines**, *Ignition delay time measurements.*
- Experimental **Internal Combustion Engines**, *Performance parameters measurements.*
- Numerical **Computational Reactive Fluid Dynamics - CRFD**, *3D Combustion systems simulations.*
- Numerical **Detailed Chemical Kinetics**, *Numerical simulations, 0D and 1D Combustion system simulations.*
- Research Supervisor
- 2020–Present **Doctoral Thesis**, *3 D.Eng students graduated, 2 currently under supervision.*
- 2018–Present **Master Thesis**, *6 M.Eng students graduated, 4 currently under supervision.*
- 2014–Present **Bachelor Thesis**, *23 B.Eng students graduated, 3 currently under supervision.*

Research Areas

Fuel formulation and development.

Fuel Surrogates and Detailed chemical kinetics .

Ethanol combustion.

Computational Reactive Fluid Dynamics.

Internal Combustion Engines.

Vehicular Aerodynamics.

Collaborative Research Activity

Combustion Chemistry Centre - C3/UoG, Prof. Henry Curran, Ph.D, Ireland.

Institute for Energy and Materials Processes - EMPI - Reactive Fluids/UDE, Prof. Christof Schulz, Ph.D, Germany.

Petróleo Brasileiro S.A - Petrobras, Eng. Ana Carolina Bueno Bontorin, M.Sc., Brazil.

Instituto Nacional de Tecnologia - INT, Eng. Valéria Saíd de Barros Pimentel, D.Eng., Brazil.

Awards

- 05/2002–05/2004 **Master Fellowship**, CNPq, Brazil.
- 11/2005–12/2008 **Doctoral Fellowship**, CNPq, Brazil.
- 07/2007–12/2007 **Doctoral Stay Fellowship**, DAAD, Germany.
- 01/2008–06/2008 **Doctoral Stay Fellowship**, University of Duisburg Essen, Germany.
- 11/2009–05/2010 **Promotion Stipendium (Researcher)**, University of Duisburg Essen, Germany.

CV and Citation databases

Scopus, www.scopus.com/authid/detail.uri?authorId=26321361200.

ORCID, orcid.org/0000-0001-8435-9026.

Web of Science, publons.com/researcher/P-8809-2014/.

CV Lattes, lattes.cnpq.br/1305995640333184.

Publications

International peer-reviewed journal publications

16. Cancino, L.R. ; Jessica F. Rebelo ; Felipe da C. Kraus ; Eduardo H. de S. Cavalcanti ; Valéria S. de B. Pimentel ; Decio M. Maia ; Ricardo A. B. de Sá., “**FOSSIL DIESEL, SOYBEAN BIODIESEL AND HYDROTREATED VEGETABLE OIL: A NUMERICAL ANALYSIS OF EMISSIONS USING DETAILED CHEMICAL KINETICS AT DIESEL ENGINE LIKE CONDITIONS**”, *Atmosphere* **15**, 1224 (2024).

15. de Sousa, M.A. ; Cancino, L.R. ; Deschamps, I.S. ; Bazzo, E., “CRFD MODELING OF HIGH-TEMPERATURE RECIPROCATING GRATE DEGRADATION IN A 15 T/H EUCALYPTUS WOOD CHIP BOILER”, *Renewable Energy* **230**, 120858 (2024).
14. R. Meier ; A.F. Pacheco ; Cancino, L.R. ; A.A.M. Oliveira, “EFFECT OF FIRST-STAGE IGNITION ON THE ONSET OF KNOCKING IN SI ENGINES”, *Int. Journal of Engine Research* **0(0)**, 1–20 (2023).
13. G.A.J. Gonini ; A.A.M. de Oliveira ; Cancino, L.R., “IGNITION DELAY TIME CORRELATIONS FOR C1–C4 PRIMARY ALCOHOLS: A MULTIVARIATE AND AUTOMATIZED APPROACH”, *Braz. Soc. Mech. Sci. Eng* v. **45**, 397 (2023).
12. A.C. Caetano ; A.M.S. da Costa ; V. Janeiro ; P.H. Soares ; Cancino, L.R. ; C.M.G. Andrade, “FUGITIVE EMISSIONS FROM MOBILE SOURCES – EXPERIMENTAL ANALYSIS IN BUSES REGULATED BY THE EURO 5 STANDARD”, *Atmosphere (MDPI)* v. **14**, 4 - 613 (2023).
11. Cancino, L.R. ; A. da Silva Jr. ; A.R. De Toni ; M. Fikri ; A.A.M. Oliveira ; C. Schulz ; H.J. Curran., “A SIX-COMPOUND, HIGH PERFORMANCE GASOLINE SURROGATE FOR INTERNAL COMBUSTION ENGINES: EXPERIMENTAL AND NUMERICAL STUDY OF AUTOIGNITION USING HIGH-PRESSURE SHOCK TUBES”, *Fuel (Guildford)* v. **261**, 116439 (2020).
10. A. da Silva Jr. ; J. Hauber. ; Cancino, L.R. ; K. Huber, “THE RESEARCH OCTANE NUMBERS OF ETHANOL-CONTAINING GASOLINE SURROGATES”, *Fuel (Guildford)* **V. 243**, p. 306–313 (2019).
9. R.C. Catapan. ; Cancino, L.R. ; A.A.M. Oliveira. ; C.O. Schwarz. ; H. Nitschke. ; T. Frank., “POTENTIAL FOR ONBOARD HYDROGEN PRODUCTION IN AN DIRECT INJECTION ETHANOL FUELED SPARK IGNITION ENGINE WITH EGR”, *Fuel (Guildford)* **V. 234**, p. 441–446 (2018).
8. De Toni, A.R. ; Werler, M. ; Hartmann, R.M. ; Cancino, L.R. ; Schießl, R. ; Fikri, M. ; Schulz, C. ; Oliveira, A.A.M. ; Oliveira, E.J. ; Rocha, M.I., “IGNITION DELAY TIMES OF JET A-1 FUEL: MEASUREMENTS IN A HIGH-PRESSURE SHOCK TUBE AND A RAPID COMPRESSION MACHINE”, *Proceedings of the Combustion Institute* v. **36**, p. 3695–3703 (2017).
7. Werler, M. ; Cancino, L.R. ; Schießl, R. ; Maas, U. ; Schulz, C. ; Fikri, M., “IGNITION DELAY TIMES OF DIETHYL ETHER MEASURED IN A HIGH-PRESSURE SHOCK TUBE AND A RAPID COMPRESSION MACHINE”, *Proceedings of the Combustion Institute* v. **35**, p. 259–266 (2015).
6. Fikri, M. ; Cancino, L.R. ; HARTMANN, M. ; Schulz, C., “HIGH-PRESSURE SHOCK-TUBE INVESTIGATION OF THE IMPACT OF 3-PENTANONE ON THE IGNITION PROPERTIES OF PRIMARY REFERENCE FUELS”, *Proceedings of the Combustion Institute* v. **34**, p. 393–400 (2013).
5. Ramirez L.H.P. ; Fikri M. ; Cancino, L.R. ; Moréac G. ; Schulz C. ; Dagaut P., “AUTOIGNITION OF SURROGATE BIODIESEL FUEL (B30) AT HIGH PRESSURES: EXPERIMENTAL AND MODELING KINETIC STUDY”, *Combustion and Flame* v. **159**, p. 996–1008 (2012).
4. Cancino, L.R. ; Fikri, M. ; Oliveira, A.A.M. ; Schulz, C., “IGNITION DELAY TIMES OF ETHANOL-CONTAINING MULTI-COMPONENT GASOLINE SURROGATES: SHOCK-TUBE EXPERIMENTS AND DETAILED MODELING”, *Fuel (Guildford)* v. **90**, p. 1238–1244 (2011).
3. Cancino, L.R. ; Fikri, M ; Oliveira, A.A.M. ; Schulz, C., “MEASUREMENT AND CHEMICAL KINETICS MODELING OF SHOCK-INDUCED IGNITION OF ETHANOL-AIR MIXTURES”, *Energy & Fuels*, v. **24**, p. 2830–2840 (2010).
2. Cancino, L.R. ; Fikri, M ; Oliveira, A.A.M. ; Schulz, C., “AUTOIGNITION OF GASOLINE SURROGATE MIXTURES AT INTERMEDIATE TEMPERATURES AND HIGH PRESSURES: EXPERIMENTAL AND NUMERICAL APPROACHES”, *Proceedings of the Combustion Institute* v. **32**, p. 501–50 (2008).
1. Cancino, L.R. ; Restrepo, A.H ; Oliveira, A.A.M., “ANÁLISIS NUMÉRICO DE LA COMBUSTIÓN EN UN QUEMADOR ATMOSFERICO TIPO CORONA DE APLICACIÓN DOMESTICA”, *Scientia et Technica Año XIII, Agosto de 2007. Universidad Tecnológica de Pereira* v. **35**, p. 201–206 (2007).

44. J.A.M. Corredor ; M. Barrientos ; Cancino, L.R. ; A.A.M Oliveira ; M.K. Kouketsu ; G.A.J. Gonini., “**NUMERICAL SIMULATION OF A LOCOMOTIVE ENGINE USING DETAILED CHEMICAL KINETICS WITH N-HEPTANE AS A DIESEL SURROGATE**”, *Proceedings of the 27th International Congress of Mechanical Engineering v.1*, COB2023-1164 (2023).
43. J.F. Rebelo ; F.C Kraus ; Cancino, L.R., “**THE AVAILABLE DETAILED KINETICS MODELS FOR ETHANOL - AN EXTENSIVELY NUMERICAL ASSESSMENT ON IGNITION DELAY TIMES, LAMINAR FLAME SPEED AND SPECIATION**”, *Proceedings of the 27th International Congress of Mechanical Engineering v.1*, COB2023-0596 (2023).
42. M. Barrientos ; Cancino, L.R. ; A.A.M Oliveira ; M.K. Kouketsu ; G.A.J. Gonini., “**0D/1D ANALYSIS OF THE PERFORMANCE AND EMISSIONS OF A NATURAL GAS ENGINE OPERATING ON ETHANOL**”, *Proceedings of the 27th International Congress of Mechanical Engineering v.1*, COB2023-1151 (2023).
41. E.P.M. Robles ; Cancino, L.R. ; C.J.N. Sanchez ; J. Chavez., “**ANALYSIS OF AERODYNAMIC DRAG IN A SQUAREBACK GEOMETRY BY NUMERICAL SIMULATION**”, *Proceedings of the 27th International Congress of Mechanical Engineering v.1*, COB2023-0493 (2023).
40. P.E.S Melo ; Cancino, L.R., “**INFLUENCE OF THE REAR WING ON SLIDING IN FORMULA 1 VEHICLES**”, *Proceedings of the 27th International Congress of Mechanical Engineering v.1*, COB2023-0602 (2023).
39. M.A de Sousa, Cancino, L.R. and E Bazzo, “**MODELLING OF POROUS MEDIA IN A RECRIPROCATING GRATE FURACE OF A 3MW BOILER BURNING EUCALYPTUS CHIPS**”, *31st European Biomass Conference and Exhibition, 5-8 June, Bologna, Italy 4CV.3.16*, 735–744 (2023).
38. F.C. Kraus, A.A.M. Oliveira, G.A.J. Gonini, L.T.M. Barrera, V.R.B. Bonini ; Cancino, L.R., “**SURROGATE FUELS FOR BIOFUELS: A LITERATURE REVIEW AND NUMERICAL ASSESSMENT UNDER INTERNAL COMBUSTION ENGINE-LIKE CONDITIONS**”, *Proceedings of the 19th Brazilian Congress of Thermal Sciences and Engineering - ENCIT 2022 - November 6th–10th, 2022, Bento Gonçalves - RS - Brazil v.1*, ENC-2022-0255 (2022).
37. L.T.B. Meneses ; A.F. Pacheco ; G.A.J. Gonini ; V.R.B. Bonini ; F.C Kraus ; A.A.M. Oliveira ; Cancino, L.R., “**REDUCTION TECHNIQUES FOR DETAILED KINETICS MODELS: A NUMERICAL ASSESSMENT FOCUSED ON TRANSPORTATION FUELS**”, *Proceedings of the 19th Brazilian Congress of Thermal Sciences and Engineering - ENCIT 2022 - November 6th–10th, 2022, Bento Gonçalves - RS - Brazil v.1*, ENC-2022-0242 (2022).
36. L.K. Quintino ; J.E.C. Gutierrez ; Cancino, L.R., “**AERODYNAMIC INVESTIGATION OF A MIRA FASTBACK MODEL GEOMETRY USING CFD TECHNIQUES BASED ON EXPERIMENTAL WIND TUNNEL ANALYSIS**”, *Proceedings of the 19th Brazilian Congress of Thermal Sciences and Engineering - ENCIT 2022 - November 6th–10th, 2022, Bento Gonçalves - RS - Brazil v.1*, ENC-2022-0225 (2022).
35. V.R.B. Bonini ; F.C Kraus ; L.T.B. Meneses ; G.A.J. Gonini ; Cancino, L.R., “**TUNING DETAILED KINETICS MODELS FOR LAMINAR FLAME SPEED AND NOX PREDICTIONS: A SYSTEMATIC METHODOLOGY USING SENSITIVITY ANALYSES**”, *Proceedings of the 19th Brazilian Congress of Thermal Sciences and Engineering - ENCIT 2022 - November 6th–10th, 2022, Bento Gonçalves - RS - Brazil v.1*, ENC-2022-0146 (2022).
34. M.K Kouketsu ; J.A.C Mendoza ; G.A.J. Gonini ; M.H.B. Sandoval ; Cancino, L.R., “**HEAD PISTON GEOMETRY OPTIMIZATION: A CRFD STUDY APPLIED TO A LOCOMOTIVE ENGINE**”, *Proceedings of the 19th Brazilian Congress of Thermal Sciences and Engineering - ENCIT 2022 - November 6th–10th, 2022, Bento Gonçalves - RS - Brazil v.1*, ENC-2022-0079 (2022).
33. G.A.J. Gonini ; J.A.C Mendoza ; M.K. Kouketsu ; M.H.B. Sandoval ; Cancino, L.R. ; A.A.M Oliveira, “**COMBUSTION-TURBULENCE INTERACTION AND ENGINE PERFORMANCE: A CRFD NUMERICAL SIMULATION ON DIRECT-INJECTION SPARK-IGNITION ENGINES**”, *Proceedings of the 19th Brazilian Congress of Thermal Sciences and Engineering - ENCIT 2022 - November 6th–10th, 2022, Bento Gonçalves - RS - Brazil v.1*, ENC-2022-0062 (2022).

32. G.A.J. Gonini ; F.C Kraus ; V.R.B. Bonini ; L.T.B. Meneses ; A.A.M Oliveira ; Cancino, L.R., “C1-C4 ALCOHOLS FOR THE TRANSPORTATION INDUSTRY: DETAILED KINETICS MODELS ASSESSMENT IN TERMS OF LAMINAR FLAME SPEED AND IGNITION DELAY TIME”, *Proceedings of the 19th Brazilian Congress of Thermal Sciences and Engineering - ENCIT 2022 - November 6th–10th, 2022, Bento Gonçalves - RS - Brazil v.1*, ENC-2022-0057 (2022).
31. Bonini, V.R.B. ; de Sousa, M.A. ; Balestrin, K.M. ; Vicente, J. ; Cancino, L.R., “THE FORMATION OF NITRIC OXIDE IN FLAMES: A NUMERICAL ASSESSMENT USING DETAILED CHEMICAL KINETICS”, *Proceedings of COBEM 2021 - 26th International Congress of Mechanical Engineering - COBEM2021 v. 1*, COBEM-2021-1185 (2021).
30. de Sousa, M.A. ; Bonini, V.R.B. ; Balestrin, K.M. ; Vicente, J. ; Cancino, L.R., “NEGATIVE TEMPERATURE COEFFICIENT - THE INFLUENCE ON FUEL SURROGATE FORMULATION”, *Proceedings of COBEM 2021 - 26th International Congress of Mechanical Engineering - COBEM2021 v. 1*, COB-2021-1197 (2021).
29. Balestrin, K.M. ; Vicente, J. ; Bonini, V.R.B. ; de Sousa, M.A. ; Cancino, L.R., “REDUCED KINETICS MODELS FOR GASOLINE SURROGATES”, *Proceedings of COBEM 2021 - 26th International Congress of Mechanical Engineering - COBEM2021 v. 1*, COB-2021-1251 (2021).
28. Rotter, D.V. ; Hackbarth, G.Z. ; Henschel Jr. J.A ; Cancino, L.R., “SPRAY AND COMBUSTION BEHAVIOR IN A LOCOMOTIVE ENGINE USING DIESEL / BIODIESEL BLENDS: A CRFD ANALYSIS”, *Proceedings of COBEM 2021 - 26th International Congress of Mechanical Engineering - COBEM2021 v. 1*, COB-2021-0706 (2021).
27. A.C. Caetano, A.M.S. da Costa, K.M. Caetano, N.M. Caetano, D.F. da Silva, Cancino, L.R., “FUGITIVE EMISSIONS IN MOBILE SOURCES - AN EXPERIMENTAL ANALYSIS IN DIESEL-POWERED VEHICLES REGULATED BY THE EURO V STANDARD”, *Proceedings of COBEM 2021 - 26th International Congress of Mechanical Engineering - COBEM2021 v. 1*, COBEM-2021-1299 (2021).
26. Gutierrez, J.E.C. ; Duarte, L.E.V. ; Oliveira Jr., A.A.M. ; Cancino, L.R., “THE AHMED BODY’S EXTERNAL AERODYNAMICS AT 25° SLANT ANGLE REAR SURFACE: A NUMERICAL ANALYSIS USING CFD”, *Proceedings of the 18th Brazilian Congress of Thermal Sciences and Engineering - ENCIT2020 v. 1*, ENC-2020-0060 (2020).
25. Barrera, L.T.M. ; Carrillo, M.P. ; Cancino, L.R., “NUMERICAL SIMULATION OF A FOUR CYLINDER, FOUR STROKE SPARK IGNITION ENGINE USING ETHANOL / GASOLINE BLENDS”, *Proceedings of the 18th Brazilian Congress of Thermal Sciences and Engineering - ENCIT2020 v. 1*, ENC-2020-0103 (2020).
24. Jacome, C.M.P. ; Duarte, L.E.V. ; Garzon, N.A.N. ; Oliveira Jr., A.A.M. ; Cancino, L.R., “NUMERICAL ANALYSIS OF A SINGLE-CYLINDER COMPRESSION IGNITION ENGINE FUELED WITH DIESEL AND STRAIGHT SOYBEAN OIL-DIESEL BLENDS”, *Proceedings of the 18th Brazilian Congress of Thermal Sciences and Engineering - ENCIT2020 v. 1*, ENC-2020-0206 (2020).
23. Romano, A. ; Cancino, L.R., “A SIMPLIFIED MODEL FOR COMPRESSION-IGNITION INTERNAL COMBUSTION ENGINES ANALYSIS BY USING DETAILED CHEMICAL KINETICS”, *Proceedings of the 18th Brazilian Congress of Thermal Sciences and Engineering - ENCIT2020 v. 1*, ENC-2020-0069 (2020).
22. Kraus, F.C. ; Oliveira Jr., A.A.M. ; Bontorin, A.C.B. ; Santos, A.R. ; Cancino, L.R., “i-PENTANE AND i-PENTENE AS GASOLINE SURROGATES FOR THE TRANSPORT INDUSTRY: A NUMERICAL ANALYSIS ON IGNITION DELAY TIMES USING DETAILED CHEMICAL KINETICS”, *Proceedings of the 18th Brazilian Congress of Thermal Sciences and Engineering - ENCIT2020 v. 1*, ENC-2020-0512 (2020).
21. Leandro, V.M. ; Cancino, L.R., “RACING CARS AERODYNAMICS: A NUMERICAL ANALYSIS USING A SIMPLIFIED GEOMETRY”, *Proceedings of the 25th ABCM International Congress of Mechanical Engineering - COBEM2019 v. 1*, COBEM2019-1969 (2019).
20. Henschel Jr. J.A. ; Cancino, L.R., “NUMERICAL ANALYSIS OF FUEL SPRAY ANGLE ON THE OPERATING PARAMETERS IN A LOCOMOTIVE DIESEL ENGINE”, *Proceedings of the 25th ABCM International Congress of Mechanical Engineering - COBEM2019 v. 1*, COBEM2019-1642 (2019).

19. Adão, W.B. ; Cancino, L.R., “**SPRAY BEHAVIOR ON COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES: A CFD ANALYSIS OF CAVITATION IN THE FUEL INJECTOR**”, *Proceedings of the 25th ABCM International Congress of Mechanical Engineering - COBEM2019* v. 1, COBEM2019-2161 (2019).
18. Alves, J.V. ; Cancino, L.R., “**THE EFFECTS OF VARIABLE-LENGTH INTAKE MANIFOLD ON ENGINE PERFORMANCE: LITERATURE REVIEW AND NUMERICAL STUDY ON HCCI ENGINE**”, *Proceedings of the 24th ABCM International Congress of Mechanical Engineering - COBEM2017* v. 1, COBEM2017-1693 (2017).
17. Sánchez, O.Y. ; Cancino, L.R. ; Oliveira, A.A.M., “**SIMULAÇÃO NUMÉRICA MULTIDIMENSIONAL DA ADMISSÃO E COMPRESSÃO EM UM MOTOR DE COMBUSTÃO INTERNA DE IGNIÇÃO POR COMPRESSÃO**”, *Jornadas Iberoamericanas de Motores Térmicos y Lubricación - MTL2016 - La Plata* v. 1, p. 415–431 (2016).
16. Mello, R.F. ; Deyna, A. ; Wenck, F. ; Cancino, L.R., “**A NUMERICAL STUDY OF GASOLINE SURROGATE COMBUSTION ON HOMOGENEOUS CHARGE COMPRESSION IGNITION ENGINES**”, *Proceedings of ENCIT 2014 - 15th Brazilian Congress of Thermal Sciences and Engineering* v. 1, ENCIT2014-0248 (2014).
15. Oliveira, L.A. ; Cancino, L.R. ; Oliveira, A.A.M., “**SHOCK WAVE / BOUNDARY LAYER INTERACTION: A CFD ANALYSIS OF SHOCK WAVE PROPAGATION IN SHOCK TUBE EXPERIMENTS**”, *21st International Shock Interaction Symposium (ISIS21) - IOFFE - Institute of Russian Academy of Sciences* v. 1, p. 91–95 (Riga, Latvia 3 - 8 August 2014).
14. de Oliveira, A.L. ; de Toni, A.R. ; Cancino, L.R. ; Oliveira, A.A.M., Oliveira, E.J. ; Rocha, M.I., “**COMPUTATIONAL FLUID DYNAMICS ANALYSIS OF DIFFERENT GEOMETRIES FOR A JET STIRRED REACTOR FOR FUEL RESEARCH**”, *Proceedings of the 22nd International Congress of Mechanical Engineering - COBEM 2013* v. 1, COBEM2013-0571 - p. 2698-2709 (2013).
13. Oliveira, J. G. ; Medeiros, C.R. ; Cancino, L.R. ; Oliveira, A.A.M., Oliveira, E.J. ; Rocha, M.I., “**AVIATION AND AUTOMOTIVE FUEL SURROGATES: REVIEW OF NUMERICAL AND EXPERIMENTAL WORKS**”, *Proceedings of the 22nd International Congress of Mechanical Engineering - COBEM 2013* v. 1, COBEM2013-0741 - p. 3531-3542 (2013).
12. de Toni, A.R. ; de Oliveira, A.L. ; Cancino, L.R. ; Oliveira, A.A.M., Oliveira, E.J. ; Rocha, M.I., “**ANALYSIS OF THE COMBUSTION OF REFERENCE FUELS AS AN AID TO THE DEVELOPMENT OF A PERFECTLY STIRRED REACTOR FOR FUEL RESEARCH**”, *Proceedings of the 22nd International Congress of Mechanical Engineering - COBEM 2013* v. 1, COBEM2013-0555 - p. 2618-2623 (2013).
11. Cancino, L.R. ; Oliveira, A.A.M., Oliveira, E.J. ; Rocha, M.I., “**ISOCETANE (*i*-C₁₆H₃₄), HEXADECANE (*n*-C₁₆H₃₄) AND METHYLCYCLOHEXANE (C₇H₁₄) AS JET-FUEL SURROGATES: A NUMERICAL STUDY OF IGNITION DELAY TIME**”, *Proceedings of the 22nd International Congress of Mechanical Engineering - COBEM 2013* v. 1, COBEM2013-0534 - p. 2499-2505 (2013).
10. Cancino, L.R. ; Fikri, M ; Oliveira, A.A.M. ; Schulz, C., “**THERMAL OXIDATION OF ETHANOL: EXPERIMENTAL AND NUMERICAL ANALYSIS OF IGNITION CHEMISTRY OF ETHANOL-AIR MIXTURES IN SHOCK-HEATED GASES**”, *27th International Symposium on Shock Waves (ISSW27) - IOFFE - Institute of Russian Academy of Sciences* v. 1, p.137–142 (St. Petersburg, 19..24 July 2009).
9. Cancino, L.R. ; Fikri, M ; Oliveira, A.A.M. ; Schulz, C., “**COMPUTATIONAL FLUID DYNAMIC SIMULATION OF A NON-REACTIVE PROPAGATING SHOCK WAVE IN A SHOCK TUBE**”, *27th International Symposium on Shock Waves (ISSW27) - IOFFE - Institute of Russian Academy of Sciences* v.1, p. 333–338 (St. Petersburg, 19..24 July 2009).
8. Cancino, L.R. ; Fikri, M ; Oliveira, A.A.M. ; Schulz, C., “**AUTOIGNITION OF ETHANOL: ANALYSIS AND EXPERIMENT OF ETHANOL IGNITION IN SHOCK TUBE**”, *Proceedings of the 12th Brazilian Congress of Thermal Sciences and Engineering - ENCIT 2008* v. 1, ENCIT2008-CIT08-4983 (2008).
7. Cancino, L.R. ; Fikri, M ; Oliveira, A.A.M. ; Schulz, C., “**SHOCK-TUBE STUDY OF THE IGNITION DELAY TIMES OF ETHANOL AT HIGH PRESSURES AND INTERMEDIATE TEMPERATURES - EXPERIMENTAL AND NUMERICAL APPROACHES**”, *Fall Technical Meeting of the Eastern States Section of the Combustion Institute 2007 "Chemical and Physical Processes in Combustion"* v. 01, p. 82-87 (2007).

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