

# **CAIO2017**

August 6th - 9th, 2017



Centro Científico Tecnológico - CONICET - Bahía Blanca Camino La Carrindanga, km 7, Bahía Blanca

# Topical areas

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#### Chemical Engineering Science

- 01a Thermodynamics.
- 01b Heat and mass transfer.
- 01c Separation technologies.
- 01d Fluido mechanic and transport phenomena. Micro ans nano fluids.



## Chemical and Food Engineering Teaching

10a Manag. systems, practical improvements, evaluation and metrics.
 10b Evaluation techniques for risk, HAZOP, LOPA, consequence models.

- 09b Electronic learning and evalutaion.
- 09c Process safety and sustainability teaching.
- 09d Laboratories and professional practices.

Safety of Industrial Procecess



### Chemical Reaction Engineering and Catalysis

- 02a Reactions, reactors.
- 02b Polymerization processes.
- 02c Catalitics processes (petrochem., environment, fine and green chem., etc.,
- 02d Electrochemical processes. Corrosion.
  02e Biocatalysis and biotransformations. Basic aspects of applied engineering.



# Process Systems Engineering

- 03a Synthesis and design of processes and products.
- 03b Modeling, simulation and optimization of process systems.
- 03c Process control and monitoring.
- 03d Operations planning and supply chain.
- 03e Engineering of multiscale systems.
- 03f Water-energy-food-waste nexus.
- 03g Other aplicacionts of systems engineering (energy, health, etc.).



# Sustainability and the Environment

10e Mechanical integrity and reliability of installations.

11a Environmental management.

10c Instrumented safety systems.

10d Fires and explosions, decreased risk.

- 11b Environmental and soil remediation.
- 11c Process intendification.
- 11d Clean and emerging processes.
- 11e Waste processing and convertion of waste into energy.
- 11f Life cycle analysis.
- 11g Solid, liquid and gaseous effluents.



#### Industrial Biotechnology, Bioeconomy

- 04a Biotechnological processes.
- 04b Environmental and industrial bioechnology.
- 04c Bio-based economy.
- 04d Biofuels.



# Conceptual, Basic, and Detailed Engineering and Company and Project Management

- 12a Conceptual, basic and detailed engineering.
- 12b Business and project management.



#### Food Science and Technology

- Food biotechnology and nanotechnology.
   Conservation, packaging, storage and food quality.
- 05c Food industry, agroindustry.



#### Conferences

13a Plenary lectures. 13b Keynotes conferences.



### Conventional and Non-Conventional Energies

- 06a Conventional and non-conventional oil&gas.
- 06b Renewable energy, hidrogen, fuel cells.
- 06c Fuels from biomass and other alternative energies.



### **Round Tables and Professional Activities**

- 14a Exchange meetings and other activities.
- 14b Round tables...

#### Materials and Nanotecnology

- 07a Ceramics, hibrid materials, polymers.
- 07b Nanotechnology. Nano materials. Development and applications.
- 07c Biomaterials.
- 07d Particle technology.
- 07e Industrial applicattions. 07f Other materials.



#### Works and Activities for Undergraduate Students

15a Poster session.

papers

# Process Industries

- 08a Chemical and petrochemical industry.
- 08b Oil and gas production and refyning industry.
- 08c Pharmaceutical industry.
- 08d Paper, steel, nuclear and other industries.



- 01 March Opening reception of abstracts
- 01 April Closing reception of abstracts
- 10 April Notification of evaluation of abstracts
- 20 May Closing reception of full papers
- 10 June Notification of evaluation of full