

# ICMAP 2018

The 7th International Conference on Microelectronics and Plasma Technology

July 24–28, 2018 / Songdo ConvensiA, Incheon, Korea

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**Prof. Dr. Nagahiro SAITO**  
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## Education

- 1995 Waseda University, B.D.
- 1997 Waseda University, M.D.
- 2000 Waseda University, Ph.D.

## Research Career

- 2000 Assistant Professor, Waseda University
- 2003 Associate Professor, Nagoya University
- 2008 Professor, Nagoya University

## Research Field

- Plasma Chemistry
  - Molecular Technology based on Solution Plasma
  - Plasma CVD
  - Reaction Kinetics and Dynamics
- Molecular Catalyst
  - Hetero-graphene, nanoparticles, battery
- Thin Films
  - Self-assembled Monolayers

## Main Projects

- JST-CREST Molecular Technology
  - Deepening of the Precise Reaction Field in Solution Plasma and Development of Advanced Carbon Catalyst
  - [http://www.jst.go.jp/crest/mt/en/researchers/nagahiro\\_saito.html](http://www.jst.go.jp/crest/mt/en/researchers/nagahiro_saito.html)

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## Researchers Information

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ResearcherID

<http://www.researcherid.com/rid/I-6113-2014>

Researchmap

<http://researchmap.jp/read0132947/?lang=english>

Google Citation

<https://scholar.google.com/citations?user=U1PN43cAAAAJ&hl=en>

J-Global

<http://jglobal.jst.go.jp/en/public/200901089775809735>

Researchgate

[https://www.researchgate.net/profile/Nagahiro\\_Saito](https://www.researchgate.net/profile/Nagahiro_Saito)

## Achievements

1. Kim, H.; Saito, N. One-pot synthesis of purple benzene-derived MnO<sub>2</sub> - carbon hybrids and synergistic enhancement for the removal of cationic dyes, *Scientific Reports*, vol. 8, 4342, 2018 (DOI : 10.1038/s41598-018-22203-1)
2. Kim, H. M; Watthanaphanit, A.; Saito, N., Simple Solution Plasma Synthesis of Hierarchical Nanoporous MnO<sub>2</sub> for Organic Dye Removal. *ACS Sustain. Chem. Eng.* 2017, 5 (7), 5842-5851.
3. GasiditPanomsuwan, Nagahiro Saito, Takahiro Ishizaki, Electrocatalytic Oxygen Reduction on Nitrogen-Doped Carbon Nanoparticles Derived From Cyano-Aromatic Molecules via Solution Plasma Approach, *Carbon*, vol. 98, pp. 411-420, 2016. (DOI : 10.1016/j.carbon.2015.11.013)
4. GasiditPanomsuwan, Nagahiro Saito, Takahiro Ishizaki, Nitrogen-doped carbon nanoparticle-carbon nanofiber composite as an efficient metal-free cathode catalyst for oxygen reduction, *ACS Appl. Mater. Interface*, vol. 8, No. 11, pp 6962–6971, 2016. (DOI : 10.1021/acsami.5b10493)
5. GasiditPanomsuwan, Nagahiro Saito, Takahiro Ishizaki, Simple one-step synthesis of fluorine-doped carbon nanoparticles as potential alternative metal-free electrocatalysts for oxygen reduction reaction, *J. Mater. Chem. A.*, vol. 3, 9972 - 9981 (2015). (DOI : 10.1039/c5ta00244c)
6. J. Kang, O.L. Li, N. Saito, A simple synthesis method for nano-metal catalyst supported on mesoporous carbon: the solution plasma process, *Nanoscale*, 5 (2013), 6874-6882.
7. J. Kang, O.L. Li, N. Saito, Synthesis of structure-controlled carbon nanospheres by solution plasma process, *Carbon*, 60 (2013), 292-298.
8. T. Morishita, T. Ueno, G. Panomsuwan, J. Hieda, A. Yoshida, M.A. Bratescu, N. Saito, Fastest Formation Routes of Nanocarbons in Solution Plasma Processes, *Sci. Rep.*, 6 (2016), 36880.
9. K. Hyun, N. Saito, The solution plasma process for heteroatom-carbon nanosheets: the role of precursors, *Sci. Rep.*, 7 (2017).
10. T. Ishizaki, N. Saito, O. Takai, Correlation of cell adhesive behaviors on superhydrophobic, superhydrophilic, and micropatterned superhydrophobic/superhydrophilic surfaces to their surface chemistry, *Langmuir*, 26 (2010), 8147-8154.