

2022 Great Britain Section of The Combustion Institute Report

Section Website: <http://www.combustion.org.uk>

Section Chair: Nedunchezian Swaminathan

Section officers and board members with titles:

- Officers
 - Prof. Nedunchezian Swaminathan, Chair
 - Prof. Salvador Navarro-Martinez, Secretary
 - Dr. Kevin J. Hughes, Treasurer
- Board Members
 - Prof. Nedunchezian Swaminathan
 - Dr. Andrew Aspden
 - Prof. Roger Cracknell
 - Dr. Kevin J. Hughes
 - Dr. Salvador Navarro-Martinez
 - Dr. Brian Peterson
 - Dr. Suresh Sadasivuni
 - Dr. Agustin Valera-Medina
 - Dr. Konstantina Vogiatzaki
 - Prof. Jennifer Wen

Members of the section:

Active Members	202
Non-Student Members	151
Student Members	51

Has the section revised its by-laws since 2020?

- No

Section meetings and workshops since 2018:

- Section Meetings
 - 18 May 2022
 - 19 Jan 2022
 - 20 Oct 2021
 - 23 Sep 2021 (AGM)
 - 19 May 2021
 - 24 March 2021
 - 19 Jan 2021
 - 8 Dec 2020
 - 6 Nov 2020 (AGM)
 - 21 Oct 2020
 - 15 July 2020
 - 20 May 2020.
 - All meetings were quorate for the regular committee meetings (>6 members) and AGM (>15 members)
- Workshops

- Online CIBS lecture series were organised, during 2020-2021 by K. Vogiatzaki and A. Valera-Medina. These were attended by 60-100 participants from academia and industry, online.
- 20th January 2021 Prof Bill Jones (Imperial College): LES for Combustion Instabilities
- 25th of March 2021: Dr Francesco Restuccia (King's College): Combustion Safety: Ignition in storage conditions, from biomass to lithium-ion battery fires; Dr Rory Hadden (Edinburgh): Combustion problems in wildfire science
- 30th of June 2021: Professor Jennifer Wen (University of Warwick): Hydrogen combustion in the context of fire and explosion safety: overview of previous work, some knowledge gaps and new development
- 19th of October 2021: Dr Agustin Valera Medina (Cardiff University): Ammonia Combustion
- Dr Penny Atkins and Prof Rob Morgan (University of Brighton): Hydrogen Combustion

- Low Carbon Combustion Meeting 2.0 – French and UK Sections
- The French and UK sections of the Combustion Institute have hosted a technical meeting on Low Carbon Combustion on 5-6 April 2022 at the Engineering Department at the University of Cambridge, UK.
 - A total of 6 keynote and 34 contributed talks were held in sessions on Solid Biomass Combustion, Biofuels, CO₂ capture and utilisation, ammonia, hydrogen and metals combustion, accompanied by a poster session. The keynote talks provided overviews of the scientific, technical, as well as broader implications for the implementation of new energy technologies. The discussions were very stimulating, and provided a much needed occasion for young researchers to present their recent work, network, make friends, and learn what is happening in the field.
 - The meeting was held in hybrid mode, with 68 in-person attendees, and 44 virtual participants. It was rewarding to see that the technology now allows for a very smooth delivery and participation of both in-person and virtual participants, with a lively Q&A involving all.
 - The programme details can be found at <https://lowcarbon.sciencesconf.org>. The talks will eventually be uploaded for access – look out for the links from the base website.

Other activities:

- The section has successfully bid for the European Combustion Meeting 2025, which will be held in Edinburgh, April 13-16, 2025.

Awards given by section:

- Hinshelwood Prize (UK Young Investigator)
 - 2021: Ewa Marek, University of Cambridge
 - 2020, Dr Daniel Pugh, University of Cardiff
 - 2019: Dr Luca Magri, University of Cambridge.
- Gaydon Prize (Best UK Contribution to the Symposium)
 - 2020: 38th Symposium: A. W. Skiba, T. F. Guiberti, W. R. Boyette, W. L. Roberts and E. Mastorakos, "On the bi-stable nature of turbulent premixed bluff-body stabilized flames at elevated pressure and near lean blow-off", Proc. Comb. Inst. 38, 2853-2860, (2021)
- Sugden Prize (Best UK Paper)

- 2020: D. Bradley, M. Shehata, M. Lawes, P. Ahmed , "Flame extinctions: Critical stretch rates and sizes", Combustion and Flame, vol. 212, pages 459-468, (2020)
- 2019: P. M. de Oliveira and E. Mastorakos, "Mechanisms of flame propagation in jet fuel sprays as revealed by OH/fuel planar laser-induced fluorescence and OH* chemiluminescence", Combustion and Flame, vol. 206, pages 308-321, (2019).

Special achievements attained by section members:

- None

Does your Section plan to organize the international Combustion Institute Summer School (CI-SS)?

- No

If you selected "Yes", which year will it be carried out?

- N/A

Other information you may want to report:

- N/A