



THE COMBUSTION INSTITUTE

(British Section)

www.combustion.org.uk

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ANNUAL GENERAL MEETING – MINUTES

**13.30 24th of September 2013
Loughborough University**

The meeting was chaired by Prof. Bill Jones. The attendance list is attached.

1. Apologies for Absence

Apologies received from J. Moran, K. Hughes, J. Griffiths, M. Brown, A. Hayhurst.

2. Minutes of the AGM, 12th September 2012 at University of Oxford

The minutes were accepted as correct.

3. Matters Arising

There were no matters arising.

4. Chairman's Report

The Chairman, Prof. Bill Jones, thanked R. Stone and M. Kraft for their contributions to the committee and for organising meetings during this year. He also offered a welcome to the new secretary, Y. Hardalupas. The Chairman thanked all candidates for their willingness to stand for the election and welcomed the newly elected committee members P. Bowen and Y. Wu.

5. Secretaries' Report (see Annex A)

The Secretary reported on the year's meetings, awards and elections, which were conducted electronically this year. Four members at large stood for the committee, with two being elected: P. Bowen, Y. Wu.

6. Treasurer's Report of the Accounts for 2012-2013 (Annex B)

The Treasurer, Neil Morgan, reported that the finances of the British section are extremely healthy and have continued being boosted by the massive efforts of the ECM 2011 organising team. For 2013, £4,750 in travel grants were provided for British section members to attend the ECM at Lund University. Interest rates still remain low and a poor investment income is expected.

7. Presentations of Hinshelwood, Gaydon and Sugden Prizes (Annex A)

The Hinshelwood Prize 2012 was presented to Dr Johannes Kiefer, Senior Lecturer at the University of Aberdeen. The 2012 Gaydon Prize was awarded to Nick Worth and James Dawson. The Sugden Prize was awarded to a paper co-authored by Graham Dixon-Lewis, Paul Marshall, Branko Ruscic, Alexander Burcat, Elke Goos, Alberto Cuoci, Alessio Frassoldati, Tiziano Faravelli, Peter Glarborg. The Hinshelwood panel was headed by Kevin Hughes, with assistance from Markus Kraft and Richard Stone. The Gaydon Prize headed by Stewart Cant, with assistance from Yannis Hardalupas. The Sugden Panel was chaired by Nondas Mastorakos, with assistance from Guillermo Rein and Stuart Scott.

8. Ratification of CIBS rules regarding electronic elections (Annex C)

The CIBS rules for the election of committee and officers were amended to allow electronic elections.

9. Combustion Symposium Bid for 2018 – update

The Chairman reported that the London bid to host the 2018 Symposium on Combustion will proceed.

10. Any other business

10.1. Travel for UK Researchers to participate at the 35th Symposium.

Bids for travel grants for the combustion symposium will open after the decision for acceptance of papers. Notice should be sent probably around April 2014.

Annex A – Secretaries’ Report

A.1. Technical Meetings of the CIBS

Autumn Meeting 2012: Richard Stone organized a meeting on the 12th September 2012 in Oxford on “Future Internal Combustion Engines and Their Fuels. The meeting featured speakers from industry and academia, covering boosting, knock and superknock, and the development of a range of new injection and emissions control strategies.

Spring Meeting 2013: Markus Kraft organized a meeting on the 24th May 2013 on ‘Biomass Fuelled Power Generation with CO₂ capture’. The one-day event covered both the commercial aspects as well as the more scientific and fundamental aspects related to biomass pre-processing, pyrolysis, combustion, gasification and hydrogasification of biomass. Following the presentations, the event culminated with the Conference dinner organised to celebrate Prof. Allan Hayhurst’s 75th birthday. The dinner event was attended by not only the Combustion Institute members and the conference attendees, but also by Prof. Hayhurst’s past PhD students.

A.2. Awards

Travel Grants

Travel grants of £250 were awarded to eligible members travelling to the ECM meeting in Lund, as listed in Table 1.

Hinshelwood Prize 2012

The Hinshelwood Prize 2012 has been awarded to Dr Johannes Kiefer, Senior Lecturer at the University of Aberdeen, for outstanding work in laser-based diagnostics as applied to the analysis of mixtures, and characterization of multiphase systems and reactive flows. The committee was headed by Kevin Hughes, with assistance from Markus Kraft and Richard Stone.

Gaydon Prize 2012

The 2012 Gaydon Prize for the best UK contribution published and presented to the 34th Combustion Symposium has been awarded to Nick Worth and James Dawson, for the paper: “Self-excited circumferential instabilities in a model annular gas turbine combustor: Global flame dynamics”, Proc Comb Inst 34, 3127-3134, 2013. The committee was headed by Stewart Cant, with assistance from Yannis Hardalupas.

Sugden Prize 2012

The Sugden Prize for the best paper by a UK contributor during 2012 has been awarded to a paper co-authored by Graham Dixon-Lewis, Paul Marshall, Branko Ruscic, Alexander Burcat, Elke Goos, Alberto Cuoci, Alessio Frassoldati, Tiziano Faravelli, Peter Glarborg, “Inhibition of hydrogen oxidation by HBr and Br₂”, published in Combustion and Flame, vol. 159, 528–540 (2012). Graham Dixon-Lewis passed away in 2010, and this is a posthumous award for this last paper. Derek Bradley has agreed to accept the prize on his behalf, and pass it on to his family. The committee was headed up by Nondas Mastorakos, with assistance from Guillermo Rein and Stuart Scott.

Name	Affiliation	Paper title
Andreea Stefan	Imperial College	Chemical Kinetics Reduction Using a RCCE-CSP Methodology. An Application to Laminar Premixed Propane-air Flames
Xinyan Huang	Imperial College	Smouldering Combustion of Soil Organic Matter: Inverse Modelling of the Thermal and Oxidative Degradation Kinetics
Benoit Fond	Imperial College	Use of Thermographic Phosphors for Simultaneous Velocity, Temperature and Mixture Fraction Imaging
Fabian Hampp	Imperial College	High Speed Combustion in Confined Hydrogen/Methane Mixtures
Thomas Sponfeldner	Imperial College	On the alignment of flamelet normals with the principal compressive strain rate of the turbulent flow field
Christopher Abram	Imperial College	Experimental Considerations for Simultaneous Gas-Phase Thermometry and Velocimetry using Thermographic Phosphors
K Volkov	Kingston University	Combustion of single aluminium droplet in non-uniform flowfield
Yuan Gao	Newcastle University	Scalar Dissipation Rate Transport in the Context of LES of premixed turbulent flames: A DNS Analysis
Fei Teng	Sheffield University	Flame Stability Characteristics of the Hydrogen-Methane-Carbon Dioxide Mixtures
Irufan Ahmed	University of Cambridge	Simulation of swirl combustion in a closed vessel using strained flamelets
Ivan Langella	University of Cambridge	Large Eddy Simulation of Turbulent Premixed Combustion
Zacharias M. Nikolaou	University of Cambridge	Direct Numerical Simulations of multi-component fuel mixture combustion with detailed chemistry.
Edward Yapp Kien Yee	University of Cambridge	Kinetic modeling and sensitivity analysis of detailed soot particle size distribution in burner-stabilised, stagnation flames
Maria Botero	University of Cambridge	Experimental study on the sooting tendency of diesel and gasoline surrogate hydrocarbons in laminar diffusion flames
Zhiyi Han	University of Cambridge	The Forced and Self-excited Heat Release Response of Stratified Flames to Acoustic Velocity Fluctuations
Dongping Chen	University of Cambridge	Size-dependent melting of polycyclic aromatic hydrocarbon (PAH) nanoclusters: A molecular dynamic study
Dr Manosh C Paul	University of Glasgow	Modelling of Heterogeneous Combustion Process of Biomass
Mohamed Altaher	University of Leeds	Hydrocarbon speciation of exhaust gases from a gas turbine engine using conventional and alternative aviation fuels
Umair Ahmed	University of Manchester	A transport equation for flame turbulence interaction in premixed turbulent combustion
Kai Luo	University of Southampton	Assessment of Multiple Acoustic Waves Effects on Turbulent Premixed Flames
Roy J Crookes	Queen Mary University London	Experimental and Modelling Studies of Auto-Ignition and Soot Formation of Diesel Surrogate Fuels (2822285)

Table 1. Awards for ECM Meeting poster presentations.

A.3. Committee Membership and Elections

Nominations for the committee have been made for the two positions available, replacing Richard Stone and Markus Kraft, both of whom stepped down earlier for personal reasons. Jethro Ackroyd (Cambridge), Ben Anthony (Cranfield), Phil Bowen (Cardiff) and Yajue Wu (Sheffield) have stood for election. There were 86 valid votes. The results are shown on Figure 1. The composition of the committee from 24 September will be as indicated on Table 2.

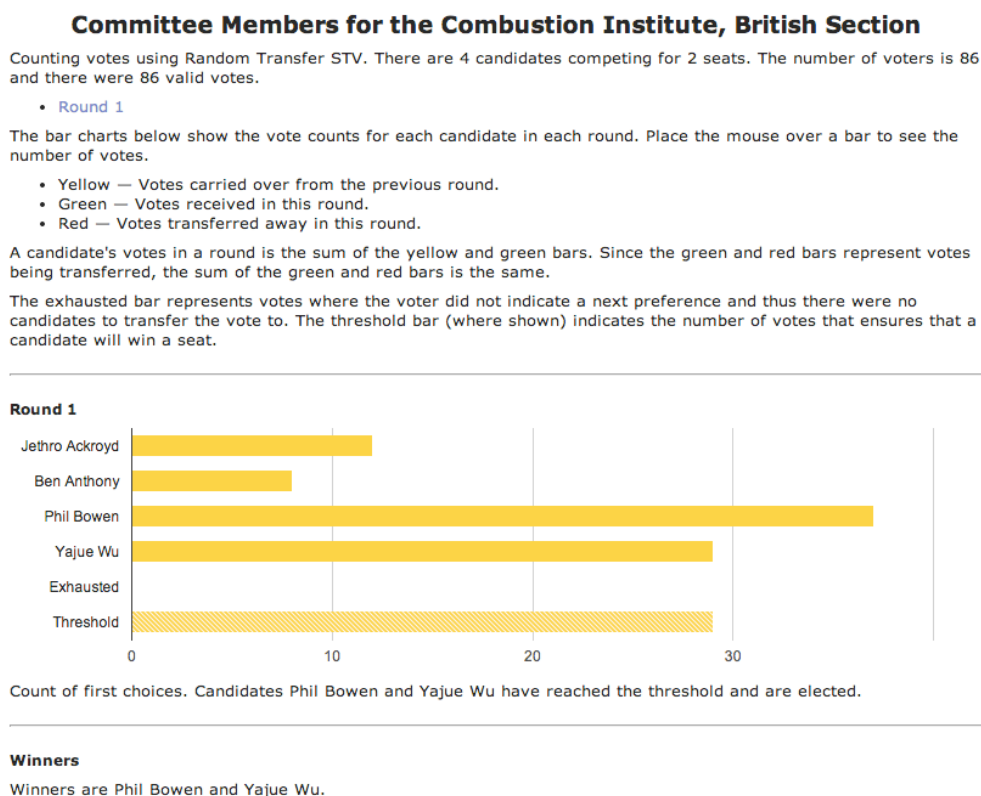


Figure 1. Election results for the CIBS Committee

Name	Affiliation	Term
Prof. P. Bowen	Cardiff University	(2013-2016)
Prof. R. S. Cant	University of Cambridge	(2012-2015)
Prof. Y. Hardalupas	Imperial College	(2009 – 2012),(2012 – 2015) Hon. Secretary
Prof. A N. Hayhurst	University of Cambridge	Honorary life member
Dr. K. J. Hughes	Leeds University	Membership secretary, co-opted (2013)
Prof. W. P. Jones	Imperial College	Chair, (2011-2016)
Prof. R. P. Lindstedt		Director, Combustion Institute (co-opted)
Prof. E. Mastorakos	University of Cambridge	Associate Editor of C&F (co-opted)
Mr. J. Moran	Rolls-Royce plc	(2012-2015)
Dr. N. Morgan	Shell Global Solutions	(2011-2014)
Dr G. Rein	Imperial College	Web Master (2008-2011), (2011-2014)
Dr Y. Wu	University of Sheffield	(2013-2016)

Table 2. Committee Members, CIBS, starting September 2013

A.4. Membership Secretary's Report 2013

Assuming all outstanding standing orders are paid, currently there are 221 members, ten fewer than at the corresponding point last year. A detailed breakdown is as follows:

	Number	Change since 2012 AGM
Academics	85	-7
Retd. Academics	19	0
Students	70	-1
non-Academics	39	-2
Retd. Non-Academics	8	0
Total Academics	174	-8
Total Others	47	-2
Total Membership	221	

108 members pay by standing order, the others pay by cheque or direct internet banking payment. 7 renewal requests have been sent out during the year, 21 members from 2012 did not respond.

For longer term information on membership trends, a detailed breakdown since 2000 is given in the following table. From past experience, I project that the end of year total will be about 225.

Date	retired Others	retired Academics	Students	Others	Academics	Total
2000	20	7	30	75	87	219
2001	21	9	15	81	68	194
2002	19	10	23	60	73	185
2003	16	13	30	54	81	194
2004	9	18	34	52	80	193
2005	9	18	47	46	94	214
2006	8	22	57	45	98	230
2007	6	23	65	47	95	236
2008	6	21	72	53	97	249
2009	9	24	70	51	101	255
2010	9	25	82	47	96	259
2011	8	23	78	43	94	246
2012	8	19	77	41	91	236
2013*	8	19	70	39	85	221

* - As of 23/9/13

Annex B – Treasurer’s report

B.1. 2012 Overview

These results are in the process of being audited and the full audited results will be presented at the next committee meeting. The results presented here today have been checked by former Treasurer Roger Cracknell, and although he hasn’t conducted an in–depth examination he feels comfortable with the broad conclusions which are presented herein.

During 2012, the accumulated funds rose by over £51K to stand at year-end at approximately £128K.

Normal expenses (committee, secretarial, newsletter, prizes) accounted for £4653.64, which is slightly higher than 2011.

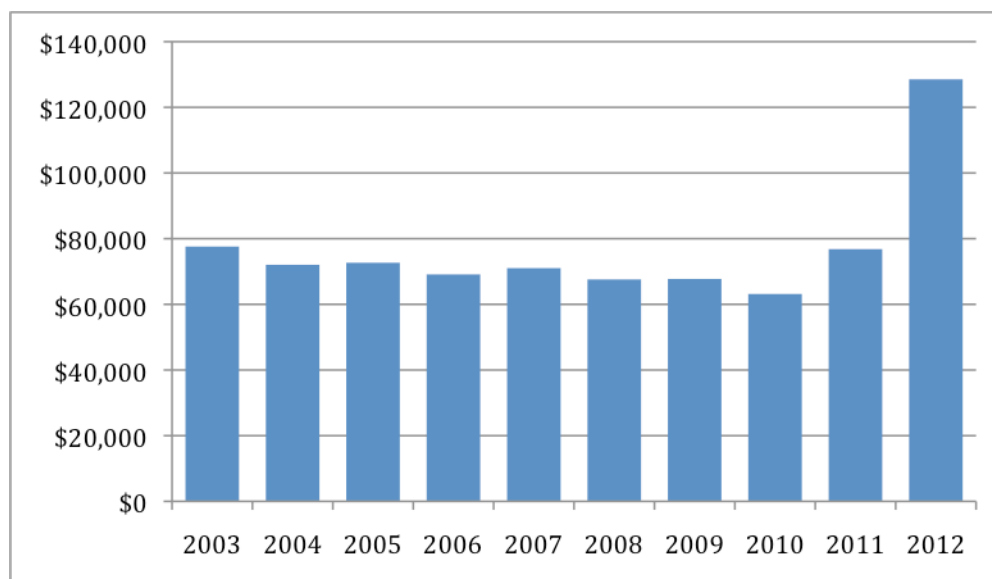
Travel grants totalling £3000 were paid in 2012 to allow travel to the Combustion Symposium in Poland - 12 recipients each received a grant of £250.

Membership subscriptions accounted for £5776 of income (almost identical to 2011).

Investment income of £531.14 in 2012 was disappointing but was indicative of the low interest rates available this year. The final balance of the proceeds from the ECM in Cardiff and Oxford Combustion Meeting yielded over £52,000 (£49,597.04 and £1,930.00 respectively).

The overall trend of the Accumulated funds for the CIBS are shown below.

B.2. Accumulated Funds 2003-2012



B.3. 2013 Status and Outlook

The finances of the British section are extremely healthy and have continued to be boosted by the massive efforts of the ECM 2011 organising team.

For 2013, £4,750 in travel grants were provided for British section members to attend the ECM at Lund University. Interest rates still remain low and a poor investment income is expected.

COMBUSTION INSTITUTE (BRITISH SECTION)

Statement of Income and Expenditure for the year ending 31 December 2012

	INCOME			EXPENDITURE	
	2011 £	2012 £		2011 £	2012 £
Membership subs	5746.00	5776.00	Colloquium expenses	0.00	0.00
Colloquium fees	11820.00	52407.04	Secretarial expenses	36.08	0.00
Investment income			Committee expenses	1516.83	2772.60
COIF Account	427.03	531.14	Newsletter	561.05	481.04
			Travel grants	1750.00	3000.00
			Prizes	900.00	1400.00
			Surplus (Deficit)	13229.07	50925.54
	=====	=====		=====	=====
	17993.03	58579.18		17993.03	58579.18
				3	

Subject to year to year variation because of the timing of receipts and payments at the year end.

Balance Sheet for the year ending 31 December 2012

	ASSETS			LIABILITIES	
	2011 £	2012 £		2011 £	2012 £
Lloyds Bank 0082488	16507.39	67695.06	Uncashed cheques	0.00	0.00
COIF 938290001C	60309.62	60840.76	Accumulated funds	76817.01	128535.82
	=====	=====		=====	=====
	76817.01	128535.82		76817.01	128535.82

Annex C - Amendment of CIBS rules regarding electronic elections

6. ELECTION OF COMMITTEE AND OFFICERS

- (i) Members of the Institute shall be eligible for election as members of the Committee provided that they are sponsored by three other members or by a quorum of the Committee and that notice of their nomination is given

to the Honorary Secretary in writing or by e-mail at least twenty eight days before the Ordinary General Meeting (defined in Rule 8) at which the results of elections of the Committee are to be announced.

- (ii) The Members of the Committee shall be elected by e-mail or electronic votes, supplemented by postal votes for those who require them, the results to be announced at the Ordinary General Meeting, and subject to termination of office by resignation or otherwise shall remain in office for three years, and at the end of the period shall be eligible for re-election for a further three years. A member who has served for six years shall stand down for at least one year before being eligible for re-election.
- (iii) The email and postal vote shall be conducted when necessary by the Honorary Secretary, with the assistance of two Scrutineers, appointed by the Committee. The Scrutineers shall not be members of the Committee nor candidates for election. The Honorary Secretary shall initiate the ballot in an e-mail containing a list of the candidates and the ballot paper. Ballot papers shall be posted to those who have previously requested this form of communication. The ballot papers shall be returned to the Hon. Secretary (or a substitute appointed by the Committee if he/she is a candidate) by e-mail for printing by him/her, or by post. The votes shall be counted by the Scrutineers prior to or at the Ordinary General Meeting, and the fractional single transferable vote system or equivalent shall be used.
- (iv) The Chairman, the Honorary Secretary and the Honorary Treasurer shall be elected by the Committee from amongst its own number and, once elected, shall serve for up to six years, subject to annual confirmation by the Committee.

16. ALTERATIONS TO RULES

The Committee shall have power to alter the rules but no such alteration shall take effect until the same has been confirmed at the next Ordinary General Meeting or at a Special General Meeting convened for the purpose, provided that no alteration to Rules 2 (objects), 15 (dissolution) or this Rule shall take effect until the approval in writing of the Charity Commissioners or other authority having charitable jurisdiction shall have been obtained; and no alteration shall be made which would have the effect of causing the Institute to cease to be a charity at law.

(Revised rules, proposed at the Committee meeting of the British Section of the Combustion Institute held at Cambridge University in May 1997. Further revisions to Rule 6 were proposed at the Committee meeting in Cambridge on 11th May 2006, and ratified after an amendment at the Ordinary General Meeting at E.On UK on Sept 19th 2006. . Additional amendment to rule 6 proposed in February 2013, and ratified at the Ordinary General meeting on September 24th 2013.)