



## THE DYERS' COMPANY RESEARCH MEDAL

In 1906 W H Perkin celebrated the 50<sup>th</sup> anniversary of the invention of the first synthetic dye Mauveine. He visited America the same year, where he was awarded the 'Perkin Medal' by the American section of the Society of Chemical Industry. In 1907 he visited Dyers' Hall as President of the Society of Dyers & Colourists, and led discussions about the creation of a research medal. At the Society's Annual Dinner in London in March that year it was suggested that a Perkin Medal of the Society should be created and awarded for major advances in dye technology. Ernest Hickson proposed the award and was supported by Arthur Brewin, then Prime Warden. The Dyers' Company Research Medal and the SDC Perkin Medal were both instituted later that year and first awarded in 1908; unfortunately, Perkin did not live to see the fruition of the project, having died suddenly in July 1907.

Although the Dyers' Research Medal was originally a short-term initiative it has now passed its centenary and is given annually in recognition of the most meritorious research paper published in the Journal of the Society of Dyers and Colourists during that year. Exceptionally, in 1932, two awards were made because there were two papers of such worth, but there have been occasions when an award was not made, most recently in 2011.

The conditions of the award have changed a number of times: until 1910 only British subjects were eligible. This restriction was then withdrawn, but from 1915 to 1922 alien *enemies* were excluded. The first overseas award was made in 1959 to Dr Wegmann of Switzerland and then again in 1983 to Dr Leitchi. Since then, there have been a number of awards to overseas research workers.

In the early years there were a number of multiple awards; Prof Rowe [5] and Prof Speakman [3]. In 1972 the rules were changed again to award silver medals where there were a number of co authors, and a second award could be made if the area of research was different from the original award, and again this has occurred on a number of occasions; seven people have been awarded two medals since 1950.

Other changes have occurred, for example the award is now made to the senior author only, and the medal itself is now silver-gilt not solid gold.

The subjects of the awards are many and varied and include Dyeing Methods and Theory, Dye Properties and Dye Structures, Fastness Testing and Analysis of Dyes and Substrates and more recently Colour Theory and Colour Matching.

Dr Peter Lockett Apr 2007.

(updated 2015)

## List of Medal Recipients:

*NB: Before 1939 the medal could be awarded to the same person on more than one occasion, and diplomas were awarded to co-authors.*

1908-09	Prof. Ed. Knecht PhD. MSc. FIC	Estimation of degree of mercerisation of cotton
1909-10	Prof. Arthur G Green MSc. FIC. FCS.	Chemical technology of Aniline Black
1910-11	Mr R L Taylor	Action of carbon dioxide and air on bleaching powder
1911-12	Mr William Harrison MSc. Tech	Electrical theory of dyeing
1912-13	Mr Sidney Herbert Higgins	Cotton bleaching
1913-14	Prof. Arthur G Green MSc. FIC. FCS) Mr William Johnson MSc. )	Constitution of aniline Blacks
1914-15	Mr Morris Fort MSc.	Mechanism of the acid dyebath
1915-16	Mr J R Hannay	Action of copper in some thiazine, oxazine and azine dyes
1916-17	Mr H M Dawson	Acid catalysis and theory of acids
1917-18	Mr LG Radcliffe MSc. Tech.Manc. FIC.	Sulphonation of fixed oils
1918-19	Mr Charles F Cross FRS. <i>Diplomas: Mr Greenwood and Mr Lamb</i>	Colloidal tannin compounds
1919-20	Dr A E Everest <i>Diploma: Mr A J Hall</i>	Tinctorial properties of anthocyanins
1920-21	Prof. G T Morgan FRS.	Co-ordination theory of valency
1921-22	Mr S Judd Lewis DSc. FIC.	Fluorescence of cellulose and derivatives
1922-23	Prof. Arthur G Green MSc. FIC. FCS. (bar) <i>Diploma: Kenneth H Saunders BA. BSc.</i>	The Ionamines
1923-24	Dr S Judd Lewis (Bar)	Determination of fluorescence of cellulose
1924-25	Dr F M Rowe FIC. <i>Diploma: Miss C Levin</i>	Identification of azoic dyes and pigments
1925-26	Dr H H Hodgson MA	Structure of sulphide dyes
1926-27	Prof. F M Rowe DSc. FIC. (bar) <i>Diplomas: Miss E Levin MSc., Mr A C Burns MSc. FIC., Mr J S H Davis BA. PhD., Mr W Tepper MSc.</i>	Preparation of phthalazine, phthalazone and phthalimide derivatives
1927-28	-	
1928-29	Mr F Scholefield MSc. Manc BSc. (Lond. & Leeds) FIC. <i>Diplomas: Miss E Hibbert &amp; Mr C K Patel</i>	Action of light on vat dyed cotton
1929-30	Dr H H Hodgson MA BSc. PhD. FIC. (bar)	Colour and constitution – electronic theory
1930-31	Prof. F M Rowe DSc. FIC. (further bar) <i>Diplomas: Dr S Ueno &amp; Mr F H Jowett.</i>	Action of boiling caustic soda on azoic dyes
1931-32	-	
1932-33	Dr J B Speakman Mr W T Astbury	Structure of Wool Fibre X-ray interpretation of fibre structure
1933-34	-	
1934-35	Mr Harold Augustus Turner MSc. AIC. <i>Diplomas: Mr Govind Malhar Nabar BA. MSc. Mr Fred Scholefield MSc. FIC. FTI.</i>	Effect on reduced vat dyes on cellulose oxidation

1935-36	Prof. F M Rowe DSc. FIC. (further bar) <i>Diplomas:</i> <i>Mr CH Giles PhD. AIC.,</i> <i>Mr RLM Allen PhD.,</i> <i>Mr WG Dangerfield PhD.</i> <i>Mr Glyn Owen MSc..</i>	Decomposition of azoic dyes
1936-37	Dr J B Speakman FIC. (bar) <i>Diplomas:</i> <i>Mr CW Whewell</i> <i>Mr JL Stoves</i>	Reactivity of sulphur linkage in animal fibres
1937-38	Professor F M Rowe DSc. FIC (further bar) Dr J B Speakman (further bar) <i>Diplomas: Messrs E Race</i> <i>Thomas Vickerstaff</i>	Unlevel dyeing of wool with acid and chrome dyes
1938-39	-	
1939-40	T H Morton	Application of vat dyes to viscose rayon
1940-41	-	
1941-42	Thomas H Vickerstaff <i>Dyes</i>	<i>"The Dyeing of Cellulose Acetate Rayon with Disperse</i>
1942-43	-	
1943-44	J Boulton	<i>"The Importance Of The Dyeing Rate – An Interpretation For The Practical Dyer Of Recent Research On Direct Dyeing".</i>
1944-45	-	
1945-46	-	
1946-47	Henry Phillips PhD. DSc. FRIC.	<i>"The Chemical Constitution And Physical Properties Of Bisulphited Wool"</i> (Journal 1946, 62, 203-9)
1947-48	John Massey Preston BSc. FRIC. FTI.	Dyeing of viscose rayon; heating and drying of textiles
1948-49	Dr H Lindley	Set and Superconcentration in Wool
1949-50	-	
1950-51	J Crank	Diffusion of direct dyes into cellulose
1951-52	H Hampson	Application of vat dyes to viscose rayon cakes
1952-53	R H Peters	Reduction properties of vat dyes
1953-54	R J Hannay	pH control in metachrome dyeing
1954-55	C H Giles	Brazilwood and logwood – fibre adsorption and lakes
1955-56	C L Bird	Dyeing cellulose acetate with disperse dyes
1956-57	K McLaren	Light-fastness testing and fading
1957-58	A Johnson	Chemistry of esters of leuco vat dyes
1958-59	-	
1959-60	J Wegmann soaping	Effect of structure on change in colour of vat dyers on
1960 -61	L Peters	Effects of solvents in wool dyeing
1961-62	E Atherton	Modern physical techniques in colour formulation
1962-63	-	
1963-64	W Ingamells	Mechanism for enhanced fading of dyes caused by crease-resistant resins
1964-65	M R Fox	Wet and dry boundaries on cellulosic textiles
1965-66	W J Marshall	Use of perforated beams in textile treatments

1966-67	C S Egerton	Photochemistry of aminoanthraquinone compounds
1967-68	H H Sumner	Mechanism of dyeing with Procion dyes
1968-69	J Shore	Mechanism of reaction of proteins with reactive dyes
1969-70	C J Bent	The thermofix dyeing of polyester/cotton blends
1970-71	-	
1971-72	J R Bell I Gailey S Oglesby	) Analysis of factors influencing colour matching ) in package dyeing )
1972-73	W McDowell	The behaviour of disperse dyes at high temperature
1973-74	-	
1974-75	R H Peters R McGregor	) The effect of rate and flow on the sorption of dye by a ) nylon fabric from aqueous solution
1975-76	H H Sumner	Random errors in dyeing – the relative importance of dyehouse variables in the reproduction of dyeings
1976-77	J Griffiths F Jones	) Scientific aspects of transfer printing )
1977-78	W Ingamells	Series of papers on carrier dyeing of poly(ethyleneterephthalate) fibres
1978-79	R B Love	The use of non-aqueous solvents in dyeing
1979-80	A N Derbyshire W J Marshall	) Value analysis of dyes - a new method based on ) colour measurement
1980-81	R McDonald	Series of three papers on industrial pass/fail colour matching
1981-82	-	
1982-83	P Liechti	A contribution to the knowledge of the mode of action of wool-protecting agents
1983-84	W Biedermann A Ischi	) Factors affecting dye transfer in conventional printing ) with disperse dyes
1984-85	G E Evans J Shore C V Stead	) Dyeing behaviour of cotton after pre-treatment with ) reactive quaternary compounds )
1985-86	M R Luo B Rigg	) Uniform colour space based on the CMC (1:c) ) colour difference formula
1986-87	-	
1987-88	A B J Kroezen	) Bubble size distribution and energy dissipation foam
1987-88	J Groot Wassink	) <i>and</i> Dynamic flow phenomena in a foam application unit
1988-89	Dr B E Fleischfresser Dr J R Cook	) Relationship between set and bulk of package-dyed ) wool yarns
1989-90	A T Peters	A series of papers on the structure property relationships of dyes for synthetic polymer fibres
1990-91	D M Lewis	The effect of reactive dyes on damage in wool dyeing
1991-92	C J Hawkyard	Accurate representation of the colour of physical samples on a cathode ray tube graphics monitor <i>and</i> Colour in textile computer-aided design systems.
1992-93	A de la Maza J L Parra A Manich L Coderch	Liposomes in wool dyeing: the stability of dye-liposome systems and their application to untreated wool fibres

1993-94	T Bechtold E Burtscher A Turcanu O Bobleter	The reduction of vat dyes by indirect electrolysis
1994-95	A Whitaker	A series of papers on the crystal structure of organic pigments
1995-96	H Gerber	Description of dyeing equilibria in the application of direct dyes
1996-97	C-S Chen  C W Brown M J Bide	) Non-destructive near infra-red analysis for the identification ) of dyes on textiles )
1997-98	JJ Gooding  R G Crompton C M Brennan J H Atherton	) Application of the channel flow cell to the investigation of ) dyeing kinetics and mechanism: new perspectives on ) dyeing processes
1998-99	A Gilchrist  J H Nobbs	) Dyeing machine control using in-line colour measurement ) (3 parts)
1999-00	K Seguchi M Iwata T Machi S Tana	) Fading of azo dyes with sodium sulphite ) ) )
2000-01	J Oakes P Gratton I Wilkes T Gordon-Smith	) Kinetic and spectroscopic study of heterogeneous ) oxidation of azo dyes using hydrochlorite ) )
2001-02	K R Millington L J Kirschenbaum	) Detection of hydroxyl radicals in photo irradiated wool ) cotton, nylon, and polyester fabrics using a fluorescent probe
2002-03	M A Weaver G Rhodes M J Cyr	) ) Synthesis of novel polymeric colorants )
2003-04	D M Lewis L J Sun	) Quaternary reactive dyes containing a ) thioether-ethylsulphone group (2 parts)
2004-05	-	
2005-06	Professor Ronnier Luo Professor Bryan Rigg Dr Guihua Cui Mr John Dakin	) Grading textile fastness (4 parts) ) ) )
2006-07	S Islam Professor Roger Wardman Kenneth Smith	) Proposal for a numerical definition of standard depths ) )
2007 – 08	D A S Phillips A H M Renfrew I Bates	) Protection of lyocell against fibrillation, Parts 1-3"; ) )
2008 – 09	Shah M Reduwan Billah Robert M Christie	) Direct coloration of textiles with photochromic ) dyes, Parts 1 and 2

- 2009 – 10 Dr Toshio Hihara  
Prof. Yasuyo Okada  
Prof. Emeritus Dr. Zenzo Morita ) The photo-reductive fading of disperse azo dyes  
on nylon substrate
- 2010 – 11 Dr Andrew Towns  
Dr Jae-Hong Choi  
Dr Chun Yoon
- 2011 – 12 -
- 2012 – 13 Professor Todor Deligeorgiev
- 2013 – 14 Professor Yi-Feng Sun  
*and five co-authors* ) Tunable solid-state fluorescence emission and red  
upconversion luminescence of novel anthracene-based  
fluorophores"
- 2014 – 15 Professor Dr H A Eren  
*And four co-authors* ) Practical realisation of ozone clearing  
after disperse dyeing of polyester
- 2015 – 16 Professor Jianzhong Shao  
polyester Fabrication of high-quality silica photonic crystals on  
fabrics by gravitational sedimentation self-assembly
- 2016 – 17 Dr Joanna Paluszkiwicz  
New perylene dyes, derivatives of 1,6,7,12-  
tetrachloroperylene-3,4,9,10-tetracarboxylic acid:  
synthesis and application (*Journal 2016, 132, 449*)
- 2017 – 18 Dr Jolanta Sokolowska  
*and four co-authors* ) Dyes derived from benzo[a]phenoxazine – synthesis,  
spectroscopic properties, and potential application as  
sensors  
for L-cysteine, (*Journal issue 2, volume 133 (2017) page  
145*).
- 2018 – 19 Prof. Xingfang Xiao  
*and six co-authors,* ) Design and intelligent colour regulation of luminescent  
silk  
chemically bonded with Eu(III) and Eu(III)/TB(III)  
)
- 2019-20 Dr Robert B Smith,  
*and five co-authors*  
potential leads  
*University of Central Lancashire, Preston* ) Synthesis and photophysical properties of meso-  
aminophenyl-substituted heptamethine dyes as  
to new contrast agents
- 2020-21 Prof. Dr.Ozan Avinc  
*and five co-authors from three separate  
universities in Turkey* ) Dyeing of poly(lactic acid) fibres with synthesised novel  
heterocyclic disazo disperse dyes
- 2021-22 Associate Professor Nelson R. Vinueza ) Identification and quantification of CI Reactive Blue 19  
dye degradation product in soil"
- 2022-23 Associate Professor Dr Keisuke Miyazaki  
*and four co-authors* ) The Relationship between the substitution position of  
hydrophobic groups on near-magenta anthraquinone  
dyestuffs and the dyeing performance for polypropylene  
fabric dyed in supercritical carbon dioxide"
- 2023-24 Professor Stephen Burkinshaw  
*School of Design, University of Leeds*  
Dr Kangsheng Liu  
*Evove Ltd, Daresbury, UK* ) The roles of polymer relaxation phenomena, aqueous  
dye  
solubility and physical properties of water in the  
mechanism  
of adsorption of a disperse dye on poly(ethylene  
terephthalate) fibres:  
Part 1 - polymer relaxation phenomena.  
Part 2 - dye solubility.  
Part 3 - physical properties of water and water-derived fibre  
properties.

- ) Part 4 - further aspects related to polymer relaxation phenomena.
- ) Part 5 - analysis of polymer relaxation phenomena for different polymers