

## Geoffrey Wilkinson as a research mentor



I met Geoff in September 1951 when he gave his first lecture in Advanced Inorganic Chemistry (Chem 150), a two-semester course in the subject for seniors and first year graduate students at Harvard University. It took only a few months before I had made up my mind that I had found both the type of chemistry and the research supervisor I wanted. I thus became one of the first students to work under his supervision for a PhD at Harvard. Being, naturally, very naive at the time, I did not give the least thought to how Geoff handled me—or his other students—and it has only been much later that I have become conscious of the merits of his ‘system’. I put system in quotes because I don’t think Geoff gave it much thought either; he just acted instinctively, but his instincts were right.

He assumed he was dealing with intelligent people who shared his own unbounded enthusiasm for chemistry. He provided guidance and encouragement, as desired by the student, but neither coddled nor over-directed. I myself did quite a few things, including writing a review on my own, that he hadn’t asked me to do. It never occurred to me to ask his permission

and it never occurred to him to give me advice I hadn’t asked for. He had a wonderful knack for guiding but not overguiding, for encouraging independence. I think that is one of the main reasons he produced so many students who succeeded well on their own afterwards.

A second instinctive gift Geoff had was for spotting talent. I won’t mention names to avoid any embarrassment, but he more than once took students that, on paper, might not have looked very promising, but who are today recognized as leaders.

The purpose of this brief essay is to call attention to the enormous impact Geoff had and will continue to have on inorganic chemistry, during and for years after his lifetime, by the PhDs he turned out as well as through his own research and publishing activities. He was very much a ‘people person’ in the most positive sense of that slangy phrase.

At the end of this note there is a list of all his PhD students during his long career, which consisted of 5 years at Harvard University, and 40 years at Imperial College, not to mention about 13 years as a nuclear chemist at Chalk River (Canada), Berkeley and MIT prior to settling into inorganic chemistry. How could one not be impressed? If a man turns out one highly successful student, even two, it could be luck. When he turns out as many as Geoff did, it’s much more than luck.

I would like to remark also that, in general, good students, when they go into academia themselves, produce *more* good students. Clearly, this is the case with Geoff’s ‘progeny’. On looking at the list of his PhDs who went into universities, those of you who are familiar with the scene today will readily think of the next ‘generation’ (and even beyond that) where more outstanding inorganic chemists abound. Apropos of this continuing influence that Geoff has had, we recognize in this issue an extended chain of academic generations that is very rare, to say the least, and possibly unique. This sort of thing may well be an ‘only in America’ phenomenon because our system favors the rapid development of young academics in ways that the U.K. and European systems do not.

I am referring to six academic ‘generations’ starting with Geoff himself. Prior to his death last year, all six generations were active, productive members of the professoriate. Each of them, in chronological order, has contributed one of the first six papers in this issue.

The sequence is as follows :

Geoffrey Wilkinson	(1921–1996)
F. A. Cotton	(1930– )
PhD with Wilkinson, 1955	
J. P. Fackler	(1934– )
PhD with Cotton, 1960	
D. Coucouvanis	(1940– )
PhD with Fackler, 1967	
M. G. Kanatzidis	(1957– )
PhD with Coucouvanis, 1984	
Songping Huang	(1960– )
PhD with Kanatzidis, 1993	

To conclude, I should like to draw attention to the illustration accompanying this note. This was done by Richard Wilson, one of the top political cartoonists in the U.K., in 1973 just after Geoff received the Nobel Prize, and presented to him by the people in his laboratory at the time. In my opinion, it gives a better impression of the real Geoff than any photograph I have seen. *He* might not have agreed with that statement, but I'll stick by it.

F. A. Cotton

#### PhD Recipients

Harvard University		*34. K. Thomas	1969
*1. F. A. Cotton	1955	35. J. Gilbert	1969
2. J. M. Birmingham	1955	36. C. K. Brown	1971
3. R. A. Sharp	1956	37. R. W. Mitchell	1972
*4. T. S. Piper	1956 (d. 1965)	38. W. Mowat	1972
5. A. K. Fischer	1957	39. A. Shortland	1972
		40. B. Wozniak	1972
Imperial College		41. I. P. Evans	1973
*6. M. L. H. Green	1959	42. D. Georgiou	1973
7. L. D. Dave	1959	43. L. Galyer	1976
8. J. L. Downs	1959	44. R. Young	1976
9. B. Moore	1959	45. E. Sigurdson	1976
10. A. Singh	1959	*46. R. A. Sanchez-Delgado	1976
*11. W. P. Griffith	1960	47. J. R. Thornback	1977
*12. M. A. Bennett	1960	*48. B. Chaudret	1977
*13. R. Colton	1960	*49. R. A. Jones	1978
14. R. Burton	1960	*50. P. G. Edwards	1979
*15. A. Davison	1962	*51. M. Bochmann	1979
*16. W. McFarlane	1963	52. R. Daroda	1980
17. D. Jones	1963	53. R. Middleton	1980
*18. J. A. McCleverty	1963	*54. A. Alves	1981
19. H. C. E. Mannerskantz	1963	55. R. Chiu	1982
20. F. I. M. Taha	1963	56. C. Howard	1983
*21. C. J. L. Lock	1963 (d. 1996)	57. D. Lyons	1983
*22. R. D. Gillard	1964	58. T. Behling	1983
*23. N. P. Johnson	1964	59. R. P. Tooze	1985
24. J. Dunlop	1965	60. J. E. Salt	1985
*25. T. A. Stephenson	1965 (d. 1985)	*61. P. Stravopoulos	1986
26. F. M. Young	1965	*62. A. R. Barron	1986
*27. J. A. Osborn	1966	63. P. D. Savage	1987
28. D. E. Grove	1966	64. F. Wells	1987
29. D. N. Lawson	1966	65. C. Longley	1988
*30. F. H. Jardine	1966	66. A. C. C. Wong	1988
*31. G. Rouschias	1967	67. B. S. McGilligan	1989
*32. D. M. Roundhill	1967	68. V. Hacoub-Sabounchian	1991
33. D. Evans	1968	69. D. Hankin	1996

\* Indicates one known to be an academic.