A version of Le Chatelier’s Principle. “When a stress is applied to a system at equilibrium, the system will adjust to relieve the stress”

My Version and its Definitions: The system is my research. The stresses are financial, manpower and instrumental shortages. To relieve the stress: Interdisciplinary and International Research Collaboration.

In addition to overcoming these shortages, there are many additional benefits, such as the integration of expertise in different fields, expansion of intellectual horizons, etc. In other words, much better research!

Examples from own experience:

Interdisciplinary: collaboration with electrochemists, analytical chemists, theoretical chemists, X-ray crystallographers, NMR and NQR spectroscopists, etc.

International: collaboration involving Turkey, Canada, France, The Netherlands, Germany, India, Poland and the U.K.

Illustrative examples in chronological order:

• First observation of base strength of cyclophosphazenes, potentiometric and conductometric measurements. Collaboration with David Feakins (Birkbeck College), Turgut and Neçla Gündüz (Ankara University, Turkey)

• Use of crystallography in conjunction with basicity. Collaboration with crystallographers Farid Ahmed (NRC, Canada); Leyla Shaw (Queen Mary College, U.K.); Mike Hursthouse, Simon Coles (Southampton University, U.K.); Hattikudur Manohar (Indian Institute of Science, Bangalore, India).

• Use of $^{35}$Cl Nuclear Quadrupole Resonance Spectroscopy. Collaboration with Andrew Porte (Glasgow University, U.K.)

• First example of a bicyclic phosphazene and of tautomerism in cyclophosphazenes. Collaboration with Vasudeva Murthy, Setharampattu Krishnamurthy (Indian Institute of Science, Bangalore, India) and Stan Cameron (Dalhousie University, Canada).

• First example of supramolecular chemistry in cyclophosphazenes. Collaboration with Krystyna Brandt (Polish Academy of Sciences, Zabrze, Poland) and David Davies (Birkbeck College, U.K.)

• First example of chirality in cyclophosphazene chemistry. Collaboration with Adem Kılıç (Gebze Institute of Technology, Turkey), David Davies (Birkbeck College, U.K.) and Mike Hursthouse, Simon Coles (Southampton University, U.K.).