ESSAY 37 : The Range of Kurata / B(3) Technologies.

The various websites in the public domain for Kurata / B(3) technology describe the range of processes developed to date. The websites refer to magnetic field resonance and magnetic wave motion as the basic mechanisms, and UFT 183 begins to give some mathematical details of torque induced dissociation by Euler resonance. The technology can produce a range of clean burning fuels from C class bunker oil, waste plastic, oil sand, bio residuals and landfills. It can also reduce the temperature needed to dissociate water into hydrogen and oxygen from 4000 C to 380 C or less. The use of multiporous ceramic catalyst is referred to on the sites. When added to water these catalysts are reported to produce bubbling of what is presumably hydrogen and oxygen. These are used to give hydrogen rich fuels. Water can be mixed with heavy oil and the resulting fuel keeps burning efficiently, and the Kurata / B(3) combustion system burns seawater.

The process is basically a resonant one, the websites describe, for example, how energy inputted at 380 C equivalent temperature produces an output of 2,000 C. The B(3) field itself is described as the spin quantum of wave mechanics. It is stated that quantum wave technology is controlled by B(3) and how physical and chemical phenomena are controlled by low input energy. For example hydrocarbons are decomposed into fragments or atoms using nanometric moulds containing catalysts. The basic mechanism is described as a spin mechanism, suggesting the transfer of angular momentum. The longitudinally aligned orbital angular momentum of an electromagnetic wave is proportional to B(3), and was first observed experimentally in the Beth effect at Princeton in 1936.

It is mentioned on the Kurata / B(3) websites that the B(3) field results in the memorizing of information. This occurs in magnetic nanostructures. Weak magnetic fields can cause barrier crossing, and nanometric systems can control intersystem crossing mechanisms. This is a kind of heterogeneous catalysis in which a weak magnetic field such as B(3) influences the outcome of a chemical reaction, or causes photodissociation of the Kurata / B(3) variety. There are also mechanisms of rotation / vibration interaction in which the rotation imparted by the angular momentum associated with the B(3) field. The B(3) field has also been used for ultra fast control of magnetization by B(3) pulses and for femtosecond B(3) switching of spins in a ferromagnetic garnet. When photodissociation occurs with circularly polarized radiation that always contains B(3). In UFT 183 a simple classical mechanism was proposed for amplification of the various torques set up by a the electric and magnetic fields of a circularly polarized electromagnetic field. This classical mechanism used Euler resonance.

These ideas were described to me in detail by Taishi Kurata about a decade ago when I invited him to join A.I.A.S., an invitation which he accepted. The inference of ECE theory is that the B(3) field is due to the rotation and translation of the frame of reference itself, specifically the B(3) field originates in the spin connection term in the relation between field and potential as described in several of the ECE papers. At that time, circa 2001, the theory of B(3) had already been developed extensively in many papers published in various journals, review articles and books such as AThe Enigmatic Photon@, in which many types of angular momentum theory were considered and related to B(3).

The difference between society in Japan and in the conservative academic society within a society in the U.S. and Britain is now quite obvious. The Kurata / B(3) technology was developed in Japan and the far east and eventually taken up by industrialists in Europe, while the idea of B(3) was not brought to fruition in the U. S. or Europe. In the backward society represented by U.N.C.C. the idea could not be developed at all. Experimental skills at U.N.C.C. were so poor that even the inverse Faraday effect could not be detected, a

retrogression into the pre laser era effectively. The simple idea of radiatively induced fermion resonance (R.F.R.) was proposed just as I was preparing to leave behind me the poisonous atmosphere of U.N.C.C., and again the academic society within a society failed to develop that most promising technique, the resonant equivalent of the inverse Faraday effect in the sense that ESR or NMR are resonant equivalents of static magnetization.

The fact that a full scale industrial plant is now operating based on B(3) (as described by the Kurata websites) may give some fresh impetus to the development of RFR into ESR, NMR and MRI without magnets at much greater resolution and with an entirely new chemical shift pattern for the analytical and medical communities.