ESSAY 35 : Kurata / B(3) Technology

After twenty years of evolution (1991 - 2011) the idea of the B(3) field has developed into what promises to be a new industrial revolution in which clean burning fuels are produced from waste oil, waste polymer and landfill; one in which clean water can be bought to every village; and one in which sea water can be made into fuel. These historical developments were brought about by AIAS Fellow Taishi Kurata, who bases his technology on the idea of the B(3) field, and on the idea of spin in general relativity. Kurata is a theoretical physicist with an obvious talent for experimentation, and is one of those who saw early on that Einstein=s theory neglects spacetime torsion. Predictably, Kurata ran into dogmatists in his own country of Japan, and wrote to me a decade ago to say that if he had listened to them, the new technology would have been delayed by a century. Kurata=s work and allusions to B(3) are to be found in the public domain on the internet. The latter also describes the fact that the first full scale plant based on Kurata / B(3) technology has opened in Cordoba in Spain, producing forty thousand metric tons of clean burning diesel a year at a profit of about two hundred euro=s a metric ton. The plant is run by the Tores group, which has the rights to Kurata B(3) technology in Europe and the United States, and there are plans for three more major plants. The Kurata / B(3) technology has also been used on a space shuttle flight to produce clean water, and has been taken up by the Green Energy group of Manchester Metropolitan University in Britain.

In the public domain it is described how the technology is based on carefully designed catalysts in nanometer moulds. The B(3) field is described as the carrier of spin or magnetism. The process can be understood in outline in analogy to the way in which a glass is shattered by sound resonance, the amplification being described schematically on one slide by a tuning fork. Similarly, a circularly polarized electromagnetic field (which always carries B(3)) is amplified by resonance with a natural frequency of a catalyst. It is possible to understand this process in outline as being an Euler resonance. The driving torque is that between the electromagnetic field and a dipole moment. I simulated this type of torque about twenty years ago at Cornell Theory Center and in the University of Zurich. The results were brilliantly animated by Chris Pelkie of Cornell Theory Center, and this award winning animation is posted on www.aias.us. It shows that the torque spins the dipoles and the molecules. In its natural condition, the torque is very small, but every driving term of an Euler resonance is small initially. To amplify it, two terms are needed in the Euler equation, the inertial term and a term that produces the restoring torque of Hooke=s law. In a linear approximation the latter term is proportional to angular displacement. The Hooke=s law term is provided by the catalyst, the driving torque by the electromagnetic field.

When a frequency of the circularly polarized electromagnetic field is tuned to a natural frequency of the catalyst in a nanometric mould, Euler resonance occurs and the hydrocarbon (for example waste oil or waste polymer) is dissociated into smaller fragments by rapid rotation, i.e. breaks apart by centrifugal forces. By careful design of catalysts, the fragments are recombined into clean burning fuels. Several of these are described on the site of the Green Energy group of Manchester Metropolitan University. This technology is only just beginning to be developed, and this is the start of a new industrial revolution, one which is likely to solve the energy crisis by using sea water to make new types of fuel. In addition to this the AIAS group is rapidly developing techniques of taking energy from spacetime itself, providing a new source of electric power sensed by Nicola Tesla. His work is described by Robert Cheshire in essay and broadcast 31.

If there are no permanent electric or magnetic dipole moments present in the waste oil or waste polymer hydrocarbon, the B(3) field induces a magnetic dipole moment through a hyperpolarizability. The induced magnetic dipole moment creates a torque with the rotating

and translating B(1) magnetic field of the electromagnetic field. The E(1) electric field of the electromagnetic field creates a torque with a permanent electric dipole moment. This is the kind of torque animated in the Pelkie animation of my molecular dynamics code, developed at UCW Aberystwyth, Edward Davies Chemical Laboratories, about thirty years ago and reported in the Journal of Chemical Physics.

Despite the acute hardships inflicted upon myself personally by the dogmatists, inert cynics and behind the scenes career destroyers of our times, I hope that this new technology will proliferate with great rapidity because of the urgent need to find new sources of clean fuel. For example, the world is running out of phosphates, used for various purposes, and is running out of copper. Very soon, petroleum will have to be rationed for use in the petrochemical industry which produces almost all we take for granted today, most items in any household are made of polymer made from petroleum. One can imagine, now, an industry that is clean and which is powered by new fuels formed from sea water as described in the public domain on the Kurata / B(3) sites.

The well paid and wholly unproductive dogmatists are still trying to force an impression on the unwary that B(3) does not exist, but it is hard to ignore forty thousand tons of clean burning fuel.