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From: 1:04:44

Let me just conclude by some general remarks:

Adaptation through selection is a very important process, on which we have been working for a number of years and which is now being developed in Chemistry by many groups, for example by that of Jeremy Sanders in Cambridge, and since lots of people now are working more and more in this field, it's developing very strongly.

So, it is introducing in Chemistry this notion of selection, the fact that chemical objects can select the pieces they need to build up themselves: it's an adaptive Chemistry which can lead, of course, to adaptive technologies.

Chemistry has developed from molecular Chemistry, to supramolecular, organized, dynamic going further, to becoming adaptive, towards more and more complex forms of matter.

Now, let me make a comment on Chemistry in general: I know this meeting is on Green Chemistry, I am not a Green Chemist, so to say, although when something you might call green can result from our work, we develop it, as in the case of double degradable dynamic polymers, "green" polymers.

So, I just comment on something I wrote in one of my papers about two years ago.

"Too often Chemistry is considered as a mere utilitarian activity, maybe not even a science, and often people despise it. Considering the societal issues facing chemistry (and chemical industry) these days, it must be "green", it must be "sustainable", it must be "environmentally friendly", it must answer the questions raised by society - It's not chemistry that raises them, that's what you have to say when people around you talk badly about chemistry: Chemistry gives answers to the questions that society creates - , Chemistry must process the CO₂ that others have produced – Chemistry doesn't make CO₂ by itself, CO₂ is produced because many people need materials, need to eat, need to have a car and so on, so they produce CO₂, and Chemistry is asked to bring solutions to them -, it must provide the solutions to problems that others have generated, and so on..

Any bona fide chemist strives to follow the triple minimization of matter consumption, of energy utilization and of waste production."

This is our business, it has always been our business, this is not new, it has been always the same over the years. We want to be as efficient as possible, to use as little energy as possible, and to produce as little waste as possible.

Thus, any bona fide chemist is a Green Chemist, that is not new at all, is just now pushed down our throat by society, we are not responsible. The people are responsible, and they have to be careful in their behaviour.

Let me finish with a few slides.

Science acquires knowledge, we cannot give it back, let's be conscious of that.

Our path leads us from the quest of knowledge to the control of our destiny.

We acquire knowledge, we have to stick with it, we cannot give it back, we cannot erase the knowledge we have acquired.

But you can use it to control what happens to us.

Leonardo Da Vinci, probably the most famous of all Italians, was an engineer, a scientist and an artist.

He wrote a fantastic sentence, which you can read here:

“Là dove natura finisce di produrre le sue spezie, quivi l’uomo comincia con le cose naturali, con l’auditorio di essa natura, a creare infinite spezie.”

The translation in English would be:

“Where nature finishes to produce her own species, man begins, using natural things – these are the elements of the Universe, the periodic table of the elements – , in harmony with this very nature – that is the basic laws of physics, which rule our universe: you cannot go against – , to create an infinity of species”.

This ending is very strong, especially for a great artist: in other words, Da Vinci says that science allows us to create all these things, which do not exist yet. Knowledge gives us this possibility to do, to produce, to create, all these new compositions of matter, these new procedures, these new components, entities, species, whatever you want, which do not yet exist.

Note that last year was the 500th anniversary of Leonardo’s death.

A very famous German mathematician, David Hilbert, wanted to have inscribed on his tombstone these two sentences:

- 1- WE MUST KNOW
- 2- WE WILL KNOW

This second one, even much stronger than the first one, is an act of confidence in what science can bring to us, and I guess the reason why we are doing science.

According to an old legend from Greek mythology, Prometheus gave knowledge to mankind, bringing them the fire of knowledge, that is Science.

Science shapes the future of humanity.

So please, participate.

Europe is trying to bring the peoples together: Science has no borders, Science is worldwide without borders.

I think that is what makes us work, what drives us as scientists, and what makes us go beyond the basic science, then also deriving applications, which, for instance, in our present situation, is to develop an efficient vaccine for this virus which so much perturbs our lives.