INTRODUCTION

Sauro Pierucci was born in Pesaro, Italy, in 1946. After having attended the Scientific Lyceum in Milan, where he lives, he entered the Polytechnic School of Milan, selecting Chemical Engineering. He performed the thesis work under the guidance of Professor Italo Pasquon and Professor Ferruccio Trifirò; the argument of the thesis was "Ethylene Catalytic Oxydation". Just after having obtained the degree and fulfilled the military service, he worked with the research team directed by Professor Mario Dente in the Polytechnic School, at the Institute of Industrial Chemistry and Chemical Engineering.

At the beginning of his activity within the group, I suggested to Sauro to face on the application of the graph theory to the logical analysis of the networks of units, that sometimes characterize the chemical processes. He devoted a lot of enthusiasm and energy in that work: it was just the first of his many successful scientific contributions.

Criteria for graph partitioning and tearing and evaluation of the optimum tearing set have been developed: these concepts have then found applications as logical supports to the general simulators and optimizers for the chemical processes, produced by the team in those years (1970-1975): SFINGE was the name of the most important chemical optimizer developed with Sauro.

The ability of Sauro in performing and handling original applied computing programs in the environment of mathematical modeling, constituted an outstanding basis for his success in our scientific world. Along 70s, the basic concepts and kinetic information for generating the lumped stoichiomentry of hydrocarbons was the ground on which Sauro improved and extended the MAMA program (useful as a support to the very successful SPYRO®); MAMA got the finalization at the end of 70s.

Again with regards to the process simulation, at the beginning of 80s, Sauro became a protagonist of the online reconciliation of experimental data and optimization (ORO program that has found applications in the 90s in the olefins industrial plants).

Other scientific interests were related to simulation and control of distillation columns for petrochemical plants. More recently, Sauro has been involved in the modeling of multiscale (from particle to reactor) and multiphase (solid and gas) devolatilization or combustion of coal and biomasses. He is still very active.

Regarding his academic career, he started, from 1971 until 1978, with collaborations to practical classes of several chemical engineering courses like Unit Operations and Industrial Chemistry. From 1978 to 1985, he was appointed to the courses of Chemical Reaction Engineering and Chemical Engineering Systems Analysis. In 1985, he obtained the position

of associate professor of Unit Operations. In 1999, he was appointed as full professor in the same discipline.

Sauro maintained always a great spirit of initiative, testified also by the large amount of contracts with the industry and, overall, his participation to international scientific meetings and organizations; into AIDIC, the Italian Association of Chemical Engineering, he counts a lot of congress organizations, international collaborations, and scientific editorial activities.

His brilliant activity in this field is so present along the years that the excellent friend and colleague Jiri Klemes has been induced, in the present occasion, to reserve an extra celebration to Sauro as congresses organizer.

Mario Dente

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