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### Science and Modern life

Chemistry as one of the main basic life sciences was found to play a great role in our modern life. Employing metals or metal ions in a coordination field with simple organic ligands and bridging units shows ancient and modern sophisticated applications. Plants life dynamo, "Chlorophyll" and animal life Oxygen transporter, "Hemoglobin" also some vitamins such as Vitamin B12 are representative models for the metal coordination chemistry role in plants and human life through an oxidation/reduction or bond formation/breaking process. Such natural facts encourage scientists to more and more trials to introduce metals into medical applications. Information storage materials is depending on certain magnetization property which takes place when some magnetic elements form coordinate Bonds in a certain way giving what is called Single Molecule Magnets (SMM). Each SMM can act as one bite on a computer hard disk. Producing Non-Linear Optics depending on Chiral centers of non-magnetic elements that helps producing new laser beam that didn't exist before[3,5]. On similar ways of employing coordination chemistry rules, we can produce metal complexes acting as Antibiotics like simple silver nicotinate and/or picolinate polymeric complexes. Using what is called Molecular Engineering to produce multifunctional materials is nowadays a main goal for most of scientists. Producing or selecting new building blocks of diatomic or polyatomic molecules or ions that give an arrangement or certain high order of Transition Metal elements is opening many new windows to new applications. Information storage (Single Molecule Magnets), New Laser Beam Lines (Non-Linear Optics), Antimicrobial Agent for (Antibiotic Resistant, Diabetic foot Ulcer Bacteria).

### Biography

Morsy A M Abu-Youssef is a Professor of Inorganic Chemistry, Chem. Department, Faculty of Science, Alexandria University. He is a Head of the Syndicate of Scientific Professions in Alexandria (2016 – till now) and a Member of the Supreme Committee for Scientific Research at Alexandria, Univ., Egypt. (2014- till now), Participated in "The Scientific Research Development Plan" for Alex. Univ. Member of the Supreme Committee for International Relations at Alexandria, Univ., Egypt. He was The Egyptian Cultural Counselor to Austria, Hungary, Slovakia, Slovenia and Czech Republic; the Egyptian Embassy in Vienna. (2010 – 2013). He is Head of the Inorg. Chem. Sector, Faculty of Science, Alex. University, Egypt. He is Expertise Trainer at the "FLDC" Faculty and Leadership Development Center, Alexandria University. He supervised many Ph.D. and M.Sc. Thesis, and examined many others. He has List of Publications contain 90 publications in International pre-reviewed Journals and about 60 International Conference Meetings around the world and one Patent research. He is a member of many scientific organizations and Professional Institutions. He awarded The Flame of Peace Award 2013 "Habsburg Flame of Peace Organization in Austria", FOI Grant (2001) "Swedish Defense Research Agency", Alexandria University Award for Science "In Chemistry" (2000) and also he awarded Lisa-Meitner Stendium 1994 "Austrian Scientific Foundation" (FWF).

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