Some Crystallographic Studies in Hacettepe University and Research Plans in SESAME

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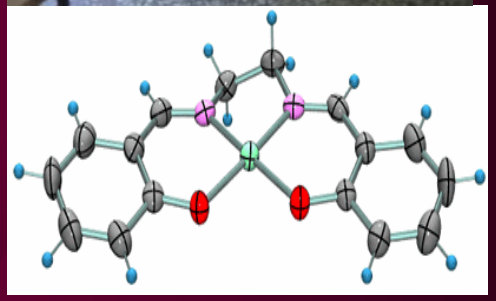
- ***Small molecule crystallography research group***
- Four Professors
- Two Assoc. Professors
- One Dr. Res.Asistant
- Eight Ph.D students
- Enraf-Nonius CAD-4
- Organic molecules
- Metal-organic compounds



- ***Pharmacological samples***
- Metal complexes with Shiff bases and bioactive ligands
- Bioactive compounds obtained from Turkish floura
- Diorganotin(IV) complexes which have chemotherapeutic properties
- Some co-and terpolymers which have anti-tumour activities

- ***Industrial and agricultural samples***
- Dithiophosphonate complexes which can be used as antiwear additives and insecticides
- Azo dyes, disulphide compounds etc.

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Synthesis, structural and spectral studies of bis-[N-(2,4-dimethoxy benzylidene)-2-mercaptoanilinato] Ni(II)

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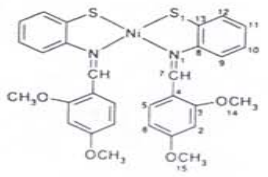
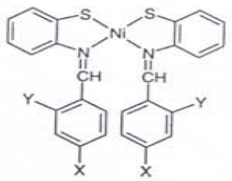
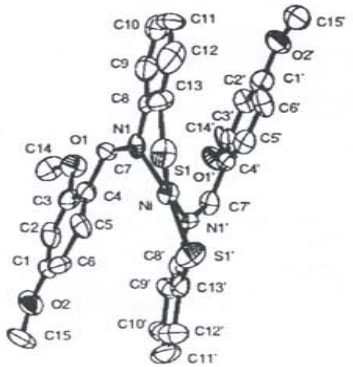


Bis[N-(4-methoxybenzylidene)-2-mercaptoanilinato]Ni(II)
Bis[N-(4-methylbenzylidene)-2-mercaptoanilinato]Ni(II)
Bis[N-(4-bromobenzylidene)-2-mercaptoanilinato]Ni(II)
Bis[N-(2, 4-methoxybenzylidene)-2-mercaptoanilinato]Ni(II)



X=Br, CH_3, OCH_3,
Y=None

X,Y= OCH_3, OCH_3



Abstract. The Ni(II) complex of N-(2,4-dimethoxy benzylidene)-2-mercaptoaniline, $[Ni(C_{15}H_{14}NO_2S)_2]$ was prepared and investigated. The structure derived from the two dimensional (2-D) NMR techniques, the infrared spectra, elemental analysis and mass spectra is consistent with that of the single crystal X-ray diffraction. Crystal system is monoclinic, space group *Cc*(no:9), number of formulae per unit cell $Z = 4$. Cell parameters are $a = 14.283(4)$, $b = 13.828(4)$, $c = 14.345(5)$ Å, $\alpha = 102.84(3)$, $V = 2762(2)$ Å^3. Two singly deprotonated ligands coordinate the metal atom in a distorted square planar geometry. The molecular geometry was also effected by C—H···N and C—H···O intramolecular hydrogen bonds.

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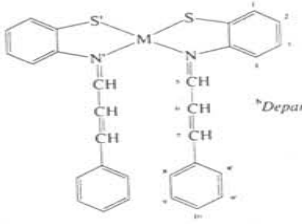
Spectral and structural studies of Ni(II) and Zn(II) complexes of *N-trans*-cinnamylidene-2-mercaptoaniline



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Structural features of two taxoids from *Taxus baccata* L. growing in Turkey

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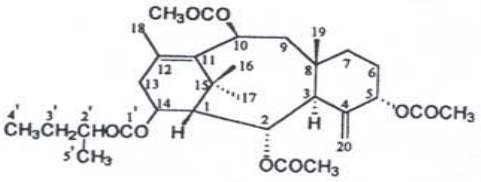

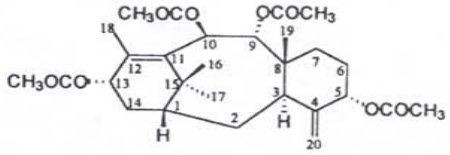

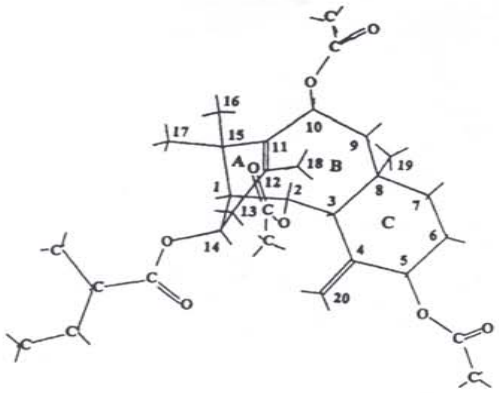

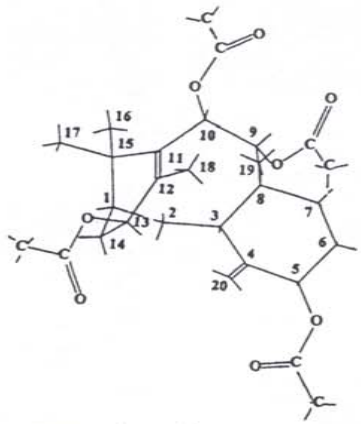

2α, 5α, 10β-triacetoxy-14β-(2-methyl)-butryloxy-4(20),11-taxadiene and taxusin

IR, ^{1}H NMR, ^{13}C NMR, DEPT 135, ^{1}H ^{1}H COSY, HMQC, HMBC and MS

Structural and Spectral Studies of N-(3-hydroxypyridine-2-yl)salicylidineimine and N-(3-hydroxypyridine-2-yl)-5-bromosalicylideneimine and their dimethyletin(IV) complexes

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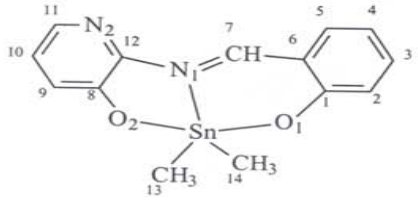
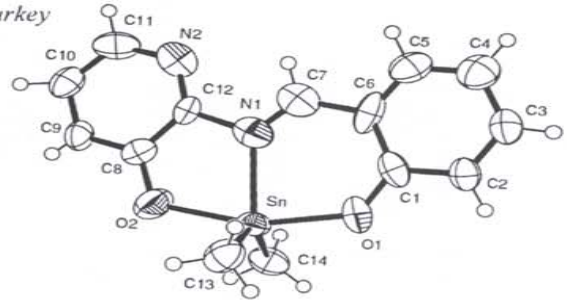
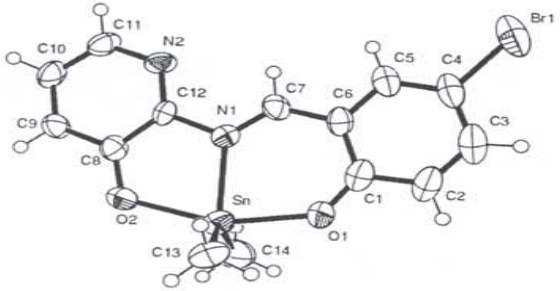
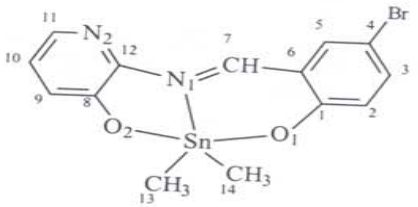








Abstract

N-(3-hydroxypyridine-2-yl)salicylidineimine (1), *N*-(3-hydroxypyridine-2-yl)-5-bromo salicylideneimine (2) and their diorganotin(IV) complexes formulated as $Me_2Sn(OC_6H_4CH{=}NC_5H_3NO)$ (3) and $Me_2Sn(OC_6H_3BrCH{=}NC_5H_3NO)$ (4) were prepared and characterized by ^{1}H-NMR, IR, mass spectroscopy and single crystal X-ray diffraction study. The studied tin(IV) complexes (3 and 4) exhibit the distorted trigonal-bipyramidal geometries around Sn atoms, separately. The tautomeric effects of ligands and the substitution of Br atom to the common molecular structure were discussed beside of the coordination geometries of 3 and 4.

Introduction

The chemotherapeutic properties, especially the antitumor activities of diorganotins continue to be the focus of many reports. Many results show the organotins to be more effective than *cis*-platin or carboplatin. Studies on the coordination chemistry of the tridentate ONO donor Schiff bases in diorganotin(IV) complexes have been described. In this paper we report the synthesis and characterization of two potentially tridentate ONO donor Schiff base ligands and their diorganotin(IV) complexes.

Crystallization behavior of some anhydride containing co- and terpolymers

H. Kaplan Can[a], S. İde[b *], Z.M.O. Rzaev[c] and A. Güner[a]

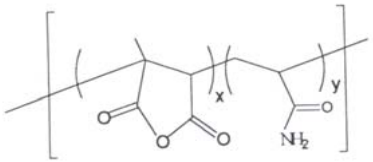
Side-chain self-fragmentation in radical copolymerization of *tert*-butyl vinyl ether with maleic and citraconic anhydrides

Zakir M.O. Rzaev [a]*, Betül Kırcı[b], Hatice K. Can[b], Ali Güner[b]

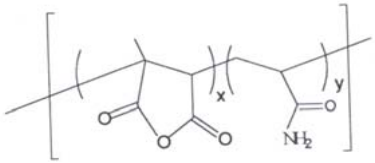
COMPLEX-RADICAL COPOLYMERIZATION OF ACRYLAMIDE (AAm)-CITRACONIC ANHYDRİDE (CA) - VINYL ACETATE (VA) AND CROSSLINKING REACTION WITH γ-AMINOPROPYLTRIETHOXYSILANE (APTS)

MURAT BARSBAY[1], HATİCE KAPLAN CAN, ZAKİR M. O. RZAEV[2] , ALİ GÜNER

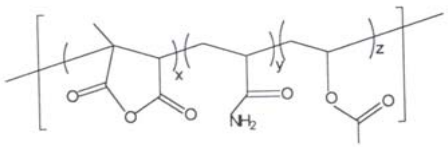
Poly(Maleic Anhydride-alt-Acrylamide)



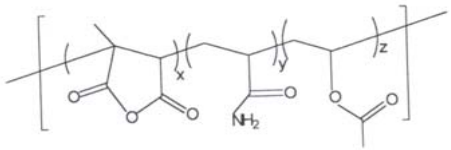
Poly(Citraconic Anhydride-alt-Acrylamide)



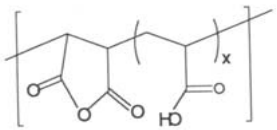
Poly (Maleic Anhydride -Acrylamide-Vinyl acetate)



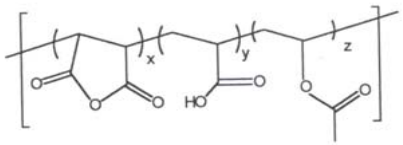
Poly (Citraconic anhydride -Acrylamide-Vinyl acetate)



Poly(MA-alt-AA) Copolymer



Poly(AA-co-MA-co-VA)terpolymer



European Polymer Journal

Applied Polymer Science

Reactive and Functional Polymers

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- Prof. Ali Güner and Prof. Zakir M.O. Rzaev's group

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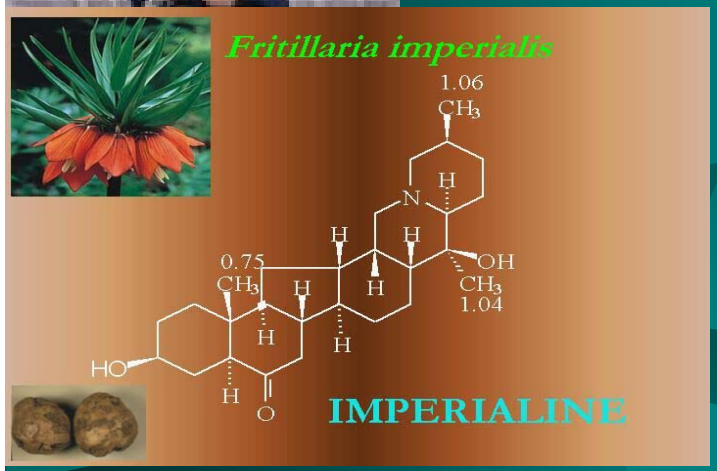
  H.C. Kaplan Can, B.Kırcı, S.Kavlak, M.Barsbay and M.Timur
- Polymer solutions
- Thermodynamics of polymers
- Spectroscopic methods in polymer chemistry
- Biodegradation of polymers
- Synthesis, characterization and application of polyfunctional co- and terpolymers

Ankara Univ., Science Faculty, Chemistry Department

- Prof. Mürşide Tüzün's group
  S.G. Öztaş, N. Ancın

- Synthesis of Phosphazene, Phosphazane and the other N- S compounds
- Synthesis and characterization of some metal complexes with Schiff bases as models for metalloenzymes

Gazi Univ. Fac.of Pharmacy, Department of Pharmacognosy, 06330 Ankara-Turkey



- Prof. Bilge Şener's group
  N.Erdemoğlu and İ.Orhan
  (http:/w3.gazi.edu.tr/web/bilgesen)
- Development of bioactive compounds from Turkish medicinal plants
- Chemical and biological activities of bioactive compounds
- Spectroscopic methods in structural analysis of bioactive compounds

Hacettepe University, Department of Chemistry

- Prof. Adil Denizli and
  Prof. S. Patır
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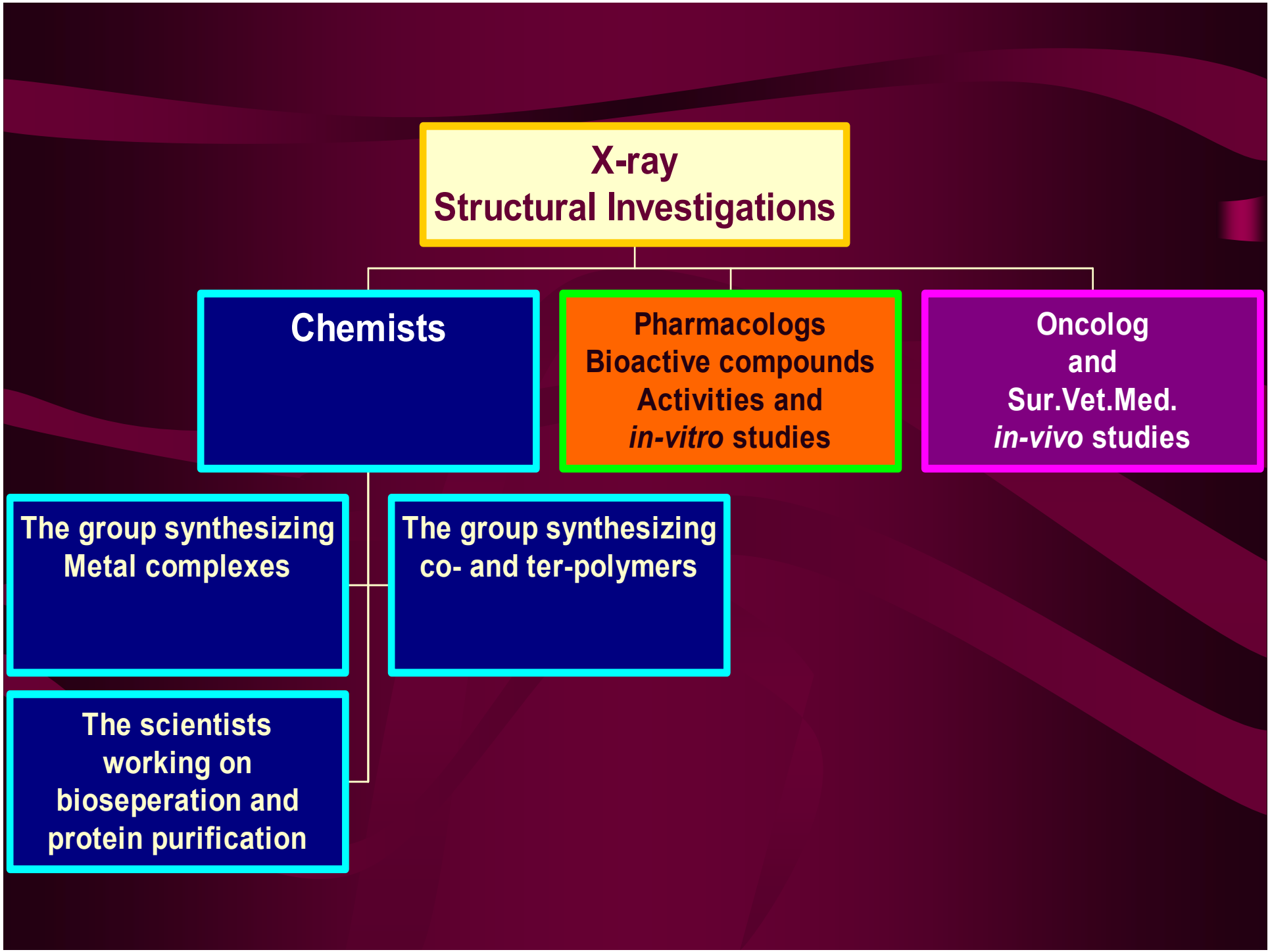
- Bioseperation
- Protein purification
- Chromatographic seperation
- Blood detoxification
- Synthesis and characterization of polymers

GATA Research Center, Ankara

- Prof.Ahmet Özet and Sur.Vet.Med.Tayfun İde
- Clinical studies on colon, male breast and prostate cancer
- Hodgkin's disease
- The randomized phase III trial of some chemotherapeutic drugs
- The effects of high-dose chemotherapy and cell transplantation in cancer patients
- Breeding of animals which have tumour cells


X-ray
Structural Investigations
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Bioactive compounds
Activities and
in-vitro studies
Oncolog
and
Sur.Vet.Med.
in-vivo studies
The group synthesizing
Metal complexes
The group synthesizing
co- and ter-polymers
The scientists
working on
bioseperation and
protein purification