



## Curriculum Vitae

### PERSONAL INFORMATION

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Surname / First name  
Address  
Telephone  
Fax  
E-mail  
Website  
Nationality  
Place and Date of birth  
Gender

**CAPITELLI Francesco**  
Via Salaria Km 29,300, 00016 Monterotondo (Rome, Italy)  
+39 0690662616  
+39 0690662630  
francesco.capitelli@ic.cnr.it  
www.ic.cnr.it  
Italian  
Rome, 31/08/1970  
Male



### WORK EXPERIENCE

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Name and address of employer	<b>2001-to present</b> Institute of Crystallography – CNR, Via Salaria Km 29.300, 00016 Monterotondo Scalo (Rome), Italy
Type of business or sector	Research
Occupation or position held	CNR III level Researcher (Register Code: 8252)
Main activities and responsibilities	Research activity on inorganic and natural phosphates with technological interest Structural characterization of crystalline materials through X-ray diffraction data
Name and address of employer	<b>2000-2001</b> Centro Laser, Via Casamassima, Valenzano (BA), Italy
Type of business or sector	Teaching role in Top Training Course - Skilled Teaching 'Applications of spectroscopic technique LIBS (Laser Induced Breakdown Spectroscopy) to the analyses of waters.
Occupation or position held	Professor
Main activities and responsibilities	Top Training Course cod. MURST 1331 'New methodologies and analytical techniques for the promotion of the safeguard of apulian Underground Water Resources from anthropic pollution sources', within the context of Operative Program 1994/1999 'Research, Technological Development, and Top Training Course'
Name and address of employer	<b>2000</b> Dipartimento di Biologia e Chimica Agroforestale ed Ambientale dell'Università degli Studi di Bari, Via Orabona 4, 70125 Bari, Italy
Type of business or sector	Research
Occupation or position held	Research collaborator
Main activities and responsibilities	Work-contract 'Analysis of chemical and physical basic parameters lysimetrical leaching waters', in the context of research activity after PhD course in agronomical chemistry, at Bari University, on the improvement of LIBS (Laser Induced Breakdown Spectroscopy) technique for the evaluation of metals within soils of different nature.
Name and address of employer	<b>1996-1999</b> Dipartimento di Biologia e Chimica Agroforestale ed Ambientale dell'Università degli Studi di Bari, Via Orabona 4, 70125 Bari, Italy
Type of business or sector	PhD course in agronomical chemistry
Occupation or position held	PhD student
Main activities and responsibilities	Development of LIBS (Laser Induced Breakdown Spectroscopy) technique for the estimation of metals in soils of different nature; use of ICP ((Inductively Coupled Plasma) technique, and of

basic analyses on soils: textural and granulometric analysis, pH (in H<sub>2</sub>O, KCl and CaCl<sub>2</sub>), organic carbon and organic matter, total nitrogen, C/N ratio, total lime.

## SCIENTIFIC ACTIVITY

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**2020:** **editor** for *Crystals* (MDPI), for biominerals section.  
Activity period: 2020.

**2019:** **guest editor** for *Crystals* (MDPI) in the special Issue "Structural Characterization of Calcium Phosphates by Means of X-ray Diffraction".  
Activity period: 2019.

**2016:** International research project bilateral agreement CNR (Italy) – CNRST (Morocco) 'Novel Ca<sub>9</sub>RE(PO<sub>4</sub>)<sub>7</sub> biomaterials: synthesis and multi-methodological structural characterization via X-ray techniques' as **Principal Investigator**.  
Activity period: 2016-2017.

**2016:** CNR Short Term Mobility 2016 "Studio della genesi delle condriti ordinarie attraverso indagine cristallografica delle fasi fosfatiche presenti" at Institute of Space Sciences (IEEC-CSIC) (Barcelona, Spain).  
Activity period: 01-21/09/2016.

**2010:** Research project FIRB 2008 (cod. CINECA RBFFR083M5N\_002) 'Futuro in Ricerca' Microtecnologie e moderne tecniche spettroscopiche e diffrattometriche per lo sviluppo e la razionalizzazione di processi di sintesi stereoselettivi ecosostenibili.  
Activity period: 2010-2012.

**2008:** CNR Short Term Mobility 2008: 'Structure solution from X-ray data of apatite natural samples', at Dept. de Geologia, Universitat Autònoma de Barcelona (Spain).  
Activity period: 28/11/2008-18/12/2008.

**2008:** Research project Progetto di Ricerca Nazionale PRIN 2007 'Sviluppo di tecniche spettroscopiche per la diagnostica dei plasmi in ambiente liquido'. (Prot. 2007K9YPL8\_004)  
Activity period: 22/09/2008-22/09/2010.

**2007:** 'CNR 2007 Vocational training', with stage 'Structural analysis of phosphorous and synthesis minerals' at Department de Geologia, Universitat Autònoma de Barcelona (Spain).  
Activity period: 29/05/2008 - 06/06/2008

**2006:** At the end of academic year of the 'Crystallography with laboratory' teaching (2005-2006 degree course in Material Sciences), held by Prof. C. Giacobozzo, full professor of mineralogy at Geomineralogical Department of Bari University (Italy), he collaborated, to the practicing made on instrumentations from Institute of Crystallography – CNR.

**2006:** CNR Short Term Mobility 2008 'Structural analysis of phosphorous compounds and pharmaceutical interest compounds' at Dept. de Geologia, Universitat Autònoma de Barcelona (Spain).  
Activity period: 01-20/05/2006.

**2005:** 'CNR 2007 Vocational training' with stage 'A structural study of synthetic and natural materials by single crystal X-ray diffraction' at Institute of Physical Engineering, Brno University of Technology (Czech Republic).  
Activity period: 22/04/2005 - 02/05/2005.

**2003-2004** 'CNR 2002 Vocational training' with stage 'Structural analysis and study of inter- and intramolecular interactions in organic and organometallic compounds at Chemistry Department, Ferrara University (Italy).  
Activity period: 10-20/02/2003; 23-27/06/2003; 22-29/09/2003; 09-13/02/2003; 24-29/05/2004.

**2002:** At the end of academic year of the 'Mineralogy with exercises' teaching (2001-2002 degree course in Chemistry), held by Prof. C. Giacobozzo, full professor of mineralogy at Geomineralogical Department of Bari University, he collaborated to the practicing made on instrumentations from Institute of Crystallography – CNR.

**2003:** project 'Mining and characterization of natural minerals from Moroccan soil' (Scientific Cooperation Program Italy-Morocco for 2003-2006 period – Research Sector: Industrial Research and technological innovation).  
Activity period: 2003-2006.

**2001:** At the end of academic year of the 'Mineralogy with exercises' teaching (2000-2001 degree course in Chemistry), held by Prof. C. Giacobozzo, full professor of mineralogy at Geomineralogical Department of Bari University, he collaborated the practicing made on instrumentations from Institute of Crystallography – CNR.

**1998-1999:** Guest at ENEA. Occasional collaboration with Raman spectroscopy Laboratory of ENEA (Frascati – Rome), for the making up of experimental set up of LIBS (Laser Induced Breakdown Spectroscopy) technique, in the context of PhD thesis activity.

**1996:** Research activity Environmental control of quarrying activity within the mining district of Trani (Bari province)', at Geology and Geophysics Department of Bari university (Italy).  
Activity: april-october 1996.

## EDUCATION AND TRAINING

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**2001:** Employment by CNR, through permanent contract, III level researcher, register code n. 8252, at Institute for the research and development of crystallographic methodologies – IRMEC (from 12/02/2001 Institute of Crystallography - IC), Bari (from 2007 at IC - CNR Monterotondo – Rome)

**2000:** Achievement of PhD title in agronomical chemistry (Bari University, Italy) discussing the thesis with title 'Applications of LIBS (Laser Induced Breakdown Spectroscopy) and ICP (Inductively Coupled Plasma) plasma techniques to the determination of heavy metal elements within soils of different nature'.

**1996:** 'Tempus' grant at Brno Technical University (Czech Republic), with research activities in the field of microscopy and PXR technique (powder X-ray diffraction), applied to the petrographic investigation of samples coming from Zulovala Massif (South Moravia, Czech Republic).

**1996:** Degree in geological sciences (mineralogical-petrographic course of study) at Bari University (Italy), discussing the thesis 'Petrology of granitoids from Belcastro, Sila Piccola'

**1989:** High school leaving qualification at 'Liceo Scientifico Statale Enrico Fermi' Bari (Italy).

### Principal skills

**Materials Science, Crystallography, Inorganic Chemistry, Biominerals, Mineralogy,.**

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## RESEARCH ACTIVITIES

### Present Research sectors

- Synthesis and characterization of novel inorganic materials with technological interests (phosphates, borates, silicates)
- Structural characterization of minerals as natural counterparts of functional materials employed in industry: apatite, whitlockite, cordierite, rare-earth borates.

### Recent Scientific activities

- Study on organic compounds like biologically active compounds (sulfoxides), or square platinum (II) complexes used in cancer therapy.
  - Development of LIBS (Laser Induced Breakdown Spectroscopy) technique applied on minerals and gemstones with museal interest, and on minerals from meteorite samples.
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## PRESENT INTERNATIONAL COLLABORATIONS

Lab. de Chimie du Solide Minéral, Université Cady Ayyad, Marrakech, Morocco; **Prof. A. Zegzouti**  
Department of Geology, Universitat Autònoma de Barcelona, Barcelona, Spagna; **Prof. J. F. Piniella**

**Mother tongue**

Italian

**Foreign Languages (self evaluation)****English****French****Spanish**

Understanding		Speech		Written
<i>Listening</i>	<i>Reading</i>	<i>Interaction</i>	<i>Oral production</i>	<i>Written production</i>
excellent	excellent	excellent	excellent	excellent
good	good	good	good	good
good	good	good	good	good

**AWARDS**

**Best Paper Award (Sciforum-037926) at: The 2nd International Online Conference on Crystals ([https://sciforum.net/conference/IOCC\\_2020](https://sciforum.net/conference/IOCC_2020))**

**BOOKS AND ARTICLES**

- [1] Paterlini V.; El Khouri A.; Bettinelli M.; Trucchi D.M.; Capitelli F. Spectroscopic and Structural Properties of beta-Tricalcium Phosphates  $\text{Ca}_9\text{RE}(\text{PO}_4)_7$  (RE = Nd, Gd, Dy). *Crystals* **11** (2021) 1269.
- [2] Ibhi A; Khiri F.; Ouknine L.; Touchnt A.A.; Capitelli F.; De Pascale O.; Senesi G.S. A new carbon-rich ureilite from Morocco. *Rendiconti Lincei-Scienze Fisiche E Naturali*. Aug 2021.
- [3] Capitelli F.; Bosi F.; Capelli S.; Radica F.; Della Ventura G.. Neutron and XRD single-crystal diffraction study and vibrational properties of whitlockite, the natural counterpart of synthetic tricalcium phosphate. *Crystals* **11** (2021) 225.
- [4] Rizzi R., Capitelli F., Lazoryak B.I., Morozov V.A., Piccinelli F., Altomare A.  $\text{Ca}_9\text{Tb}(\text{PO}_4)_7$  and  $\text{Ca}_9\text{Ho}(\text{PO}_4)_7$  doped  $\beta$ -tricalcium phosphates: ab-initio crystal structure solution, Rietveld analysis and dielectric properties. *Crystal Growth & Design* **21** (2021) 2263-2276.
- [5] Capitelli F.; Dida B.; Della Ventura G.; Baldassarre F.; Capelli D.; Senesi G.S.; Mele A.; Siliqi D. Functional Nano-Hydroxyapatite for Applications in Conservation of Stony Monuments of Cultural Heritage. *Proceedings* **62** (2020) 11.
- [6] Paterlini V., Bettinelli M., Rizzi R. El Khouri A., Rossi M., Della Ventura G., Capitelli F. Characterization and luminescence of  $\text{Eu}^{3+}$ - and  $\text{Gd}^{3+}$ - doped hydroxyapatite  $\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2$ . *Crystals* **10** (2020) 806.
- [7] Baldassarre F., Altomare A., Corriero N., Mesto E., Lacalamita M., Bruno G., Sacchetti A., Dida B., Karaj D., Della Ventura G., Capitelli, F., Siliqi, D. Crystal Chemistry and Luminescence Properties of Eu-Doped Polycrystalline Hydroxyapatite Synthesized by Chemical Precipitation at Room Temperature. *Crystals* **10** (2020) 250.
- [8] El Khouri A., Zegzouti A., Elaammani M., Capitelli F. Bismuth-substituted hydroxyapatite ceramics synthesis: Morphological, structural, vibrational and dielectric properties. *Inorganic Chemistry Communications* **110** (2019) 107568.
- [9] Senesi G.S., Capitelli F. Compositional, mineralogical and structural investigation of meteorites by XRD and LIBS. In: *Hypersonic Meteoroid Entry Physics*. Eds. Colonna G., Capitelli M., Laricchiuta A. IOP Publishing series 2053-2563 (2019). Pages 5-1 to 5-31. Bristol (UK).
- [10] Della Ventura G., Capitelli F., Capitani G., Ventruti G., Monno A. X-ray Structure Refinement and Vibrational Spectroscopy of Metavauxite  $\text{FeAl}_2(\text{PO}_4)_2(\text{OH})_2 \cdot 8\text{H}_2\text{O}$ . *Crystals* **9** (2019) 297.
- [11] Altomare, A., Rizzi, R., Rossi, M., El Khouri, A.E., Elaammani, M., Paterlini, V., Della Ventura G., Capitelli, F. New  $\text{Ca}_{2.90}(\text{Me}^{2+})_{0.10}(\text{PO}_4)_2$   $\beta$ -tricalcium phosphates with  $\text{Me}^{2+} = \text{Mn, Ni, Cu}$ : synthesis, crystal-chemistry, and luminescence properties. *Crystals* **9** (2019) 288.

- [12] Della Ventura G., Capitelli F., Sbroscia M., Sodo A. A Raman study of chalcogen species in sodalite-group minerals from the volcanic rocks of Latium (Italy). *Journal of Raman Spectroscopy* (2019) 1-9.
- [13] Rizzi R., Capitelli F., Della Ventura G., Hami W., Corriero N., Rossi M., Altomare A. Preparation, structural and spectroscopic properties of silver terbium diphosphate  $\text{AgTbP}_2\text{O}_7$ . *Zeitschrift für Kristallographie* **234** (2019) 363-369.
- [14] Capitelli F., Rossi M., El Khouri A., Elaammani M., Corriero N., Sodo A., Della Ventura G. Synthesis, structural model and vibrational spectroscopy of lutetium tricalcium phosphate  $\text{Ca}_9\text{Lu}(\text{PO}_4)_7$ . *Journal of Rare Earths* **36** (2018) 1162-1168.
- [15] Hami W., Zegzouti A., Daoud M., Zambon D., Rossi M., Vergara A., Capitelli F., Altomare A., Rizzi R. Synthesis, structural characterization and luminescent properties of  $\text{Tb}^{3+}$ -doped  $\text{AgLaP}_2\text{O}_7$  phosphors. *Ceramics International* **44** (2018) 19184-19190.
- [16] Altomare A., Capitelli F., Corriero N., Cuocci C., Falcicchio A., Moliterni A., Rizzi R. The rietveld refinement in the expo software: A powerful tool at the end of the elaborate crystal structure solution pathway. *Crystals* **8** (2018) 203.
- [17] El Khouri A., Elaammani M., Della Ventura G., Sodo A., Rizzi R., Rossi M., Capitelli F. Synthesis, structure refinement and vibrational spectroscopy of new rare-earth tricalcium phosphates  $\text{Ca}_9\text{RE}(\text{PO}_4)_7$  (RE = La, Pr, Nd, Eu, Gd, Dy, Tm, Yb). *Ceramics International* **43** (2017) 15645-15653.
- [18] Rossi M., Rizzi R., Vergara A., Capitelli F., Altomare A., Bellatreccia F., Saviano M., Ghiara M.R. Compositional variation of turquoise group minerals from historical collection of the Real Museo Mineralogico of the University of Naples. *Mineralogical Magazine* **81** (2017) 1405-1429.
- [19] Rossi M., Nestola F., Ghiara M.R., Capitelli F. Fibrous minerals from Somma-Vesuvio volcanic complex. *Mineralogy and Petrology* **110** (2016) 471-489.
- [20] Ventruti G., Schingaro E., Monno A., Lacalamita M., Della Ventura G., Bellatreccia F., Cuocci C., Capitelli F. Structure refinement and vibrational spectroscopy of vauxite from the type locality, Llallagua (Bolivia). *Canadian Mineralogist* **54** (2016) 163-176.
- [21] Della Sala P., Gaeta C., Navarra W., Talotta C., De Rosa M., Brancatelli G., Geremia S., Capitelli F., Neri P. Improved Synthesis of Larger Resorcinarenes. *Journal Organic Chemistry* **81** (2016) 5726-5731.
- [22] Talotta C., Rubino L., Gaeta C., Capitelli F., Saviano M., Brancatelli G., Geremia S., Vasca E., Neri P. Synthesis and supramolecular features of hybrid POM/onium solid-state assemblies. *Supramolecular Chemistry* **28** (2016) 403-417.
- [23] Oluwatola Omoregie H., Ojattah P., Adeleke O.E., Woods J.A.O., Capitelli F. Synthesis, Spectral and Antimicrobial Studies of Nickel (II) Complexes with Nitrogen-Containing Ligands. *Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry* **45** (2015) 469-476.
- [24] Benedetti M., Papadia P., Girelli C.R., De Castro F., Capitelli F., Fanizzi F.P. X-ray structures versus NMR signals in pentacoordinate  $[\text{PtX}_2(\eta^2\text{-CH}_2=\text{CH}_2)(\text{Me}_2\text{phen})]$  (X = Cl, Br, I), complexes. *Inorganica Chimica Acta* **428** (2015) 8-13.
- [25] Capozzi M.A.M., Capitelli F., Bottoni A., Calvaresi M., Cardellicchio C. Stacked naphthyls and weak hydrogen bond interactions govern the conformational behavior of P-resolved cyclic phosphonamides: a combined experimental and computational study. *Journal of Organic Chemistry* **79** (2014) 11101-11109.
- [26] Capozzi M.A.M., Capitelli F., Cardellicchio C. Structural Motifs in Enantiopure Halogenated Aryl Benzyl Sulfoxides: Effect of Fluorine Substitution. *Crystal Growth & Design* **14** (2014) 5442-5451.
- [27] Ezzafrani M., Ennaciri A., Harcharras M., Capitelli F. Spectroscopic and structural investigation of  $\text{BaNaP}_3\text{O}_9 \cdot 3\text{H}_2\text{O}$  cyclotriphosphate. *Phosphorus, Sulfur, and Silicon and the Related Elements* **189** (2014) 1841-1850.

- [28] Capitelli F., Della Ventura G., Bellatreccia F., Sodo A., Saviano M., Ghiara M. R., Rossi M. Crystal-chemical study of wavellite from Zbirov, Czech Republic. *Mineralogical Magazine* **78** (2014) 1057-1070.
- [29] Capitelli F., Saviano M., Ghiara M.R., Rossi M. Crystal chemical investigation of  $\text{Al}_2(\text{PO}_4)(\text{OH})_3$  augelite from Rapid Creek, Yukon, Canada. *Zeitschrift für Kristallographie* **229** (2014) 8-16.
- [30] Benedetti M., Antonucci D., Girelli C.R., Capitelli F., Fanizzi F.P. Reactivity of  $[\text{Pt}(\eta^2\text{-C}_2\text{H}_4)\text{Cl}(\text{N-N})]^+$ , N-N = diimine ligand, with phenol derivatives and first comparison between single crystal X-ray structures of syn- and anti- $[\text{Pt}(\text{N-N})(\text{phenolate})_2]$  rotamers in the solid state. *Inorganica Chimica Acta* **409** (2014) 427-432.
- [31] Rossi M., Dell'Aglio M., De Giacomo A., Gaudiuso R., Senesi G.S., De Pascale O., Capitelli F., Nestola F., Ghiara M.R. Multi-methodological investigation of kunzite, hiddenite, alexandrite, elbaite and topaz, based on laser-induced breakdown spectroscopy and conventional analytical techniques for supporting mineralogical characterization. *Physics and Chemistry of Minerals* **41** (2014) 127-140.
- [32] Ezzafrani M., Ennaciri A., Harcharras M., Khalouaf R., Galai M., Tourir R., Ebn Touhami M., Rossi M., Capitelli F. Preparation and characterization of  $\text{Mn}(\text{H}_2\text{PO}_4)_2 \cdot 2\text{H}_2\text{O}$  crystal inhibitor for ordinary mild steel corrosion in simulated cooling water using FTIR, XRD and electrochemical measurements. *Journal of Chemical Acta* **2** (2013) 73-79.
- [33] Khalouaf R., Ennaciri A., Ezzafrani M., Capitelli F. Structure and Vibrational Spectra of a New Acidic Diphosphate  $\text{K}_2\text{Cu}(\text{H}_2\text{P}_2\text{O}_7)_2 \cdot 2\text{H}_2\text{O}$ . *Phosphorus Sulfur and Silicon and the Related Elements* **188** (2013) 1038-1052.
- [34] Radica F., Capitelli F., Bellatreccia F., Della Ventura G., Cavallo A., Piccinini M., Hawthorne F. C. Spectroscopy and X-ray structure refinement of sekaninaite from Dolní Bory (Czech Republic). *Mineralogical Magazine* **77** (2013) 485-498.
- [35] Capozzi M.A.M., Capitelli F., Bottoni A., Calvaresi M., Cardellicchio, C. The Effect of the Fluorine Substitution on the Enantioselective Oxidation of Sulfides with Chiral Titanium Catalysts: A Combined Computational and Experimental Investigation. *ChemCatChem* **5** (2013) 210-219.
- [36] Della Ventura G., Radica F., Bellatreccia F., Cavallo A., Capitelli F., Harley S. The quantitative analysis of  $\text{H}_2\text{O}$  and  $\text{CO}_2$  in cordierite using single-crystal polarized-light and microspectroscopy. *Contributions to Mineralogy and Petrology* **164** (2012) 881-894.
- [37] Khalouaf R., Ezzafrani M., Ennaciri A., Harcharras M., Capitelli F. Vibrational study of Dipotassium Zinc bis (dihydrogendiphosphate) dehydrate,  $\text{K}_2\text{Zn}(\text{H}_2\text{P}_2\text{O}_7) \cdot 2\text{H}_2\text{O}$ . *Phosphorus Sulfur and Silicon and the Related Elements* **187** (2012) 1367-1376.
- [38] De Giacomo A., Dell'Aglio M., Gaudiuso R., Santagata A., Senesi G.S., Rossi M., Ghiara M. R., Capitelli F., De Pascale O. A Laser Induced Breakdown Spectroscopy application based on Calibration Free method and Local Thermodynamic Equilibrium assumption for the elemental analysis of Alexandrite gemstone and Copper based alloys. *Chemical Physics* **398** (2012) 233-238.
- [39] Cardellicchio C., Capozzi M.A.M., Alvarez-Larena A., Piniella J. F., Capitelli F. An Investigation on the Weak Interactions Assembling the Crystal Structures of Betti Bases. *CrystEngComm* **14** (2012) 4203-4215.
- [40] Ezzafrani M., Ennaciri A., Harcharras M., Khalouaf R., Capitelli F. Crystal Structure and Infrared Spectrum of new magnesium tetra-ammonium cyclotriphosphate tetrahydrate  $\text{Mg}(\text{NH}_4)_4(\text{P}_3\text{O}_9)_2 \cdot 4\text{H}_2\text{O}$ . *Zeitschrift für Kristallographie* **227** (2012) 141-146.
- [41] Capitelli F., Chita G., Ghiara M.R., Rossi M. Crystal chemical investigation of  $\text{Fe}_3(\text{PO}_4)_2 \cdot 8\text{H}_2\text{O}$  vivianite minerals. *Zeitschrift für Kristallographie* **227** (2012) 92-101.
- [42] Capitelli F., Chita G., Cavallo A., Bellatreccia F., Della Ventura G. Crystal structure of whiteite-(CaFeMg) from Crosscut Creek, Canada. *Zeitschrift für Kristallographie* **226** (2011) 731-738.

- [43] Rossi M., Ghiara M.R., Chita G., Capitelli F. Crystal-chemical and structural characterization of fluorapatites in ejecta from Somma-Vesuvius volcanic complex. *American Mineralogist* **96** (2011) 1828-1837.
- [44] Capitelli F., Chita G., Leonyuk N.I., Koporulina E.V., Bellatreccia F., Della Ventura G. REEAl<sub>2.07</sub>(B<sub>4</sub>O<sub>10</sub>)O<sub>0.60</sub> dimetaborates (REE = La, Pr); synthesis and X-ray structural characterization. *Zeitschrift für Kristallographie* **226** (2011) 219-225.
- [45] Dridi N., Arbib E.H., Karni E.H., Capitelli F., Elouadi, B. Single crystal X-ray structural investigation of alluaudite related monophosphate Na<sub>2</sub>FeMn<sub>2</sub>(PO<sub>4</sub>)<sub>3</sub>. *Eurasian Chemical-Technological Journal* **12** (2010) 213-218.
- [46] Capitelli F., Rossi M., Elaamrani M., Zegzouti A. Synthesis and single crystal X-ray structure of the tetragonal tungsten bronze Pb<sub>0.91</sub>K<sub>1.72</sub>Li<sub>1.46</sub>Nb<sub>5</sub>O<sub>15</sub>. *Crystal Research & Technology* **45** (2010) 1204–1208.
- [47] Capitelli F., Masi A., El Bali B., Essehli R. Indium-doped gallophosphate NH<sub>4</sub>[NiGa<sub>1.84</sub>In<sub>0.16</sub>(PO<sub>4</sub>)<sub>3</sub>(H<sub>2</sub>O)]: synthesis, X-ray crystal structure and IR spectroscopy. *Zeitschrift für Kristallographie* **225** (2010) 359-365.
- [48] Chaouche S., Ouarsal R., Lachkar M., Capitelli F., El Bali B. Crystal Structure and IR Study of (C<sub>6</sub>H<sub>5</sub>NH<sub>3</sub>)[ZnCl(HPO<sub>3</sub>)]. *Journal of Chemical Crystallography* **40** (2010) 486-490.
- [49] Woods J.A.O., Oluwatola Omoregie H., Retta N., Chebude Y., Capitelli F. Synthesis and physicochemical studies of Nickel(II) complexes of 2-substituted-1,3-diphenyl-1,3-propanedione, their 2,2'-bipyridine and 1,10-phenanthroline adducts and X-ray structure of (2,2'-Bipyridine)Bis(1,3-diphenyl-1,3-propanedionato) Nickel(II). *Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry* **39** (2009) 694-703.
- [50] Woods J.A.O., Oluwatola Omoregie H., Retta N., Capitelli F., da Silva I. Synthesis and physicochemical studies of Nickel(II) and Copper(II) complexes of 2-substituted-4,4,4-trifluoro-1-(2-thienyl)butane-1,3-dione, their 2,2'-bipyridine and 1,10-phenanthroline adducts and X-ray structure of (2,2'-Bipyridine)bis(4,4,4-trifluoro-1-(2-thienyl)butane-1,3-dionato) Nickel(II). *Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry* **39** (2009) 704-717.
- [51] Naso F., Capozzi M.A.M., Bottoni A., Calvaresi M., Bertolasi V., Capitelli F., Cardellicchio C. A Combined Theoretical and Experimental Investigation on the Enantioselective Oxidation of Aryl Benzyl Sulfides in the Presence of a Chiral Titanium Catalyst. *Chemistry - A European Journal* **15** (2009) 13417-13426.
- [52] Capitelli F., Chita G., Leonyuk N. I., Koporulina E. V.; Bellatreccia F., Della Ventura G. X-ray crystal structure of synthetic REEAl<sub>2.07</sub>(B<sub>4</sub>O<sub>10</sub>)O<sub>0.60</sub> (REE = (La,Ce); Ce; Nd) dimetaborates. *Zeitschrift für Kristallographie* **224** (2009) 478-483.
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**H-index:** 20 (WOS); 20 (Scholar)

**ORCID:** <https://orcid.org/0000-0001-7721-8049>

**SCOPUS:** 57196263141

**WOS:** AAY-2822-2020

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Francesco Capitelli

*Francesco Capitelli*