Ph.D. Andrzej VOGT
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Work Experience:

1981- to present –	assistant professor Chemistry Department, University of Wroclaw,
1977 -1981 –	assistant, Faculty of Mathematics, Physics and Chemistry, Universit of Wroclaw,
1973-1977 –	assistant, Institute of Low Temperature and Structure Research Polish Academy of Sciences in Wroclaw
1970-1973 –	PhD student, Institute of Low Temperature and Structure Research Polish Academy of Sciences in Wroclaw,

Scientific and Work Achievements:

Awards:

- Gold medal of the University of Wroclaw, November 14, 1997;
- Award for scientific activity from the Scientific Secretary of the PAS (3 times);
- Award for scientific activity from the Rector of University of Wroclaw (4 times);
- Award for teaching and organisation activity form the Rector of University of Wroclaw (9 times);
- Dean Award for teaching and organisation activity (over a dozen).

Hirsh Index: 3

- **36 published papers,**

Selected Publications:

- Oganisian K., Głuchowski P., **Vogt A.,** Stręk W.
  High saturation ferrmagnetic behavior of Fe:BN nanoceramic
  Phys. Status Solidi. A–Application and Material Science, (2013), 1-5.

- Oganisian, K., **Vogt, A**., Gluchowski, P., Orzechowski, K., Strek, W.
  Fe: BN nanoceramic - Negative refraction material in the wide frequency range
  Progress in Electromagnetics Research Symposium, (2013), pp. 662-665.

- A.A. Vogt, H.A. Kołodziej , A.E. Sowa, S. Strzelecki
  A New Composite Absorbing Material – Metamaterial Featuring Strong Synergistic Effect
  Proc.of 2009 Intern. Symp. On Electromagnetic Compatibility Jul 20-24 (2009) Kyoto Japan 21P1-4 737 – 740.

- Woźniczka, M., Pająk, M., **Vogt, A**., Kufelnicki, A.
  Equilibria in cobalt(II) - Amino acid - Imidazole system under oxygen-free conditions. Part I. Studies on mixed ligand systems with L-α-alanine
  Polish Journal of Chemistry, 80 (12), (2006), pp. 1959-1966.

- **Vogt, A.A**., Kolodziej, H.A., Sowa, A.E.
  A new composite absorbing material which is highly effective at the lower frequencies of the VHF range, and its applications
  IEEE International Symposium on Electromagnetic Compatibility, 2, art. no. 1706360, (2006), pp. 522-525.

- **A.A. Vogt**, H.A. Kołodziej A.E. Sowa
  Hybrid absorber using new absorbing composites,
  Proc. of 2005 IEEE Int. Symp. on EMC, EMC Society 2005, IEEE Operation Center, Chicago, IL, August 8-12, (2005), Vol 2 315-318 ISBN 0-7803-9380-5.

- H.A. Kołodziej, **A. Vogt**, S. Strzelecki, A. Sowa
  A New generation of electromagnetic radiation absorbers for conductors and cables
  Proc. 7th NATO Regional Conference on Military Communications and Information System (2005) Zegrze Poland, ISBN 83-920120-4-6

- B. Świątek-Tran, H. Kołodziej, V.H. Tran, **A. Vogt**
  $Zn(C_3H_4N_2)_2$ a novel diamagnetic insulator
  Solid State Chem. 177 / 2004 / 1011 – 1016

- **A.A. Vogt,** H.A. Kołodziej A.E. Sowa
  The effectiveness of pyramidal absorber using absorbing composites
  Proc. of EMC Europe 2004, September 6-10 2004 Eidhoven Netherland, Vol II P 12 / 2004 / 760-763

- R. Kornak, K. Maruszewski, H.A. Kołodziej**, A. Vogt**, W. Stręk
  Electric and magnetic properties of sol-gel derived silica-coated „ferrofluid-like" powders
  J. Mater. Scie. 7 (2003) 187

- B. Świątek-Tran, H. Kołodziej, V.H. Tran., M. Baenitz, **A. Vogt**
  Magnetism of $Co(C_3H_4N_2)_2(CO_3)(H_2O)_2$
  Phys. Stat. Sol. App. and Materials Science - (a) 196 No.1 / 2003 / 232 –235

- **A.A. Vogt**, H.A. Kołodziej A.E. Sowa
  Single-layer Broadband Absorbers for the Range of 1-6 GHz Using New Absorbing Materials
  Proc. of Int. Symp. on Electromagnetic Compatibility EMC Europe 2002, September 9 - 13, 2002 Sorrento, Italy Vol 2 /2002/ 683-686

- **A.A. Vogt**, H.A. Kołodziej A.E. Sowa
  Absorbing Materials for L, S, C Bands
  Proc. of 16th Int. Wroclaw Symp. on EMC, Wroclaw, June 25-28, 2002 Vol 2 /2002/ 595-598

- B. Świątek-Tran, H. Kołodziej, V.H. Tran., **A. Vogt**
  Low-frequency Dielectric Permittivity and Conductivity of $[Co(C_3H_3N_2)]_n$
  Phys.Rev.B 14/2/ /2001/ 256

- **A.A. Vogt**, H.A. Kołodziej A.E. Sowa
  An Effective Solution to the Problem of Ferrite Tile Gap Effect
  Proc. of 2001 IEEE EMC International Symposium Montreal, August 13 - 17, 2001 Vol 1 /2001/ 179-182

- **A.A. Vogt**, H.A. Kołodziej A.E. Sowa
  New Generation of Absorbing Materials
  Proc. of 15th Int. Wroclaw Symp. on EMC, Wroclaw, June 27-30, 2000 Vol. 2 /2000/ 579 – 582

Granted Patents and Patents Applications

1. **A. Vogt,** H.A. Kołodziej, S. Strzelecki, A.Sowa
   Electromagnetic energy absorbing materials
   UK Pat. Reg. / GB 2 379 331 A / 2003

2. H.A. Kołodziej, **A. Vogt,** , S. Strzelecki, G. Steinmetz
   A process for preparing methyl or ethyl esters of higher fatty acids and plant for carrying out the method
   Patent, 2012, PL 211325 B1, P.386610 A1.

3. **A.A. Vogt**, H.A. Kołodziej, S. Strzelecki, T. Kulczycki
   A method for purifying gas product obtained by the gasification of straw yellow and gray, and installation for the purification of product gases in the process of gasification of straw yellow and gray
   Patent application P-392976 [WIPO-ST-10/C-PL 392976] 18 11 2010

4. A. Sowa, **A. Vogt**, S. Strzelecki, H.Kołodziej, S. Ruta, M. Gieroń, W. Prędkowski
   A composite material, method of preparing the composite material and the use of the composite material
   Patent application P-394939 [WIPO-ST-10/C-PL 394939] 03 12 2012

5. H.A. Kołodziej, **A. Vogt**, , S. Strzelecki,J. Fałat, A.E. Sowa
   A process for preparing alkyl esters of higher fatty acids
   Patent application UPRP P-378114, 23 11 2005

6. Oganisian K., Stręk W., **Vogt A**., Głuchowski P.
   A method for preparing a magnetic ceramic and its application
   Patent application, PL 402606 A1, 2013

7. Oganisian K., Stręk W., **Vogt A**., Głuchowski P.
   A process for preparing metamaterial having a negative refractive index
   Patent application, PL 404538 A1, 2013

8. Mayer P., **Vogt A**., Kaczmar J. W., Kołodziej H. A., Strzelecki S., Sowa A. E.
   The use of energy-absorbing coating of electromagnetic waves
   Patent application, PL 405813 A1, 2013

9. Mayer P., **Vogt A**., Kaczmar J. W., Kołodziej H. A., Strzelecki S., Sowa A. E.
   Energy-absorbing coating especially energy electromagnetic waves and mechanical
   Patent application, PL 405814 A1, 2013

10. Sowa A. E., **Vogt A.,** Strzelecki S., Kołodziej H. A., Ruta S., Gieroń M., Prętkowski W.
    A composite material, method of preparing the composite material and the composite material application
    Patent application, PL 394939 A1.

11. **A.A. Vogt,** M. Łukaszewicz, S. Strzelecki
    A method and apparatus for adjusting the pH of the medium and the course of oxidation - reduction processes taking place in the bioreactor
    Reported in the patent office

Professional Experience:

- **Participation in development and implementation of technologies:**

- A new generation of composite magnetic materials - very effective, broadband absorbers of energy waves;

Description: the development of a completely new generation of yet unknown energy absorbers of electromagnetic waves with unusual magnetic properties;

Application: License sales and implementation in the **WOMAREX** company and in two other small firms;

- Methyl and ethyl esters of higher fatty acids;

Description: Development of a new, non-waste, low energy technology on the large-scale production of methyl and ethyl esters of higher fatty acids from vegetable and animal fats - diesel biofuel;

Application: License sales and implementation in the **WOMAREX** company and in two other small firms;

- Methyl and ethyl esters of fatty acids of type Ω–3 and Ω–6;

Description: Development of synthesis and technology on the large-scale production of the mixture of ethyl esters of higher fatty acids Ω–3 and Ω–6 of linseed oil - a new nutraceutical and potential anti-cancer drug, anti-diabetic and anti-atherosclerotic;

Application: License sales and implementation in the **LEENLIFE** company;

- A new generation of land stabilizers loam and clay;

Description: Development of synthesis and technology on the large-scale production of the new generation of land stabilizers loam and clay for the construction of roads, highways, parking lots, shafts, execution ground for the factory halls, residential buildings, etc. as well as the performance of building elements of the clay without needs of their firing;

Application: License sales and implementation in the **INVEST HOLDING** company;

- Purification of pyrolytic gases;

Description: Development of gas purification technologies - anaerobic pyrolysis products of polysaccharides / straw, paper / - used to generate electricity in cogeneration energy units consisting of gas engines and generators coupled with them;

Application: License sales and implementation in the **METALCOMPLEX** company;

- Distribution and development of so called glycerol fraction from the production liquid biofuels ester;

Description: Development of the physico-chemical distribution of so called technology glycerol fraction obtained during the production of methyl or ethyl esters of PUFA / higher fatty acids / from rapeseed oil to the useful chemicals products;

Application: License sales and implementation in the **JAWROL** company;

- **Inventions and technologies that have been or are currently implemented on a large or a pilot-scale production**

- ***large - scale instalations:***

1. Production line of liquid biofuels in "WOMAREX" ltd. in Giebułtów: New technology for obtaining of methyl and ethyl esters of higher fat acids of liquid energy carriers.

2. Production line of nutraceutical „VITAMIN-F-CONCEPT" in „LEENLIFE" company in Żary: New technology for obtaining of ethyl esters of polyunsaturated essential fatty group Ω - 3,6,9.

3. Production line in the production plant of the new generation of land clay stabilizers "STABI-DROX", for the “INVEST HOLDING" Ltd. from Katowice,
   - in Katowice,
   - in “POCH” in Gliwice,
   - in Chemical Factory “EUROPOL CHEMICALS” in Rudniki near Czestochowa new technology for obtaining clay stabilizers land and clay for building engineering, road engineering, etc.

4. Installation for pyrolitic gas purification produced during gasification of raw cellulose materials in Lubon near Poznan for " **METALKOMPLEKS** " ltd. from Poznan: New technology and installation for purification of gas in motion of pyrolitic / syngas / gases generated during gasification of polysaccharide using these gases for cogeneration production of electricity.

5. Installation for the production of new generation of composite magnetic materials absorbing the energy of electromagnetic waves, EMC materials “GAMMA COLOR” Ltd. Prochowice for EMCCO RESEAARCH from Wroclaw: Technology of the large-scale production of new generation composite magnetic materials - broadband, energy absorbers of electromagnetic fields and a number of products used containing them in the techniques of emc / electromagnetic compatibility

6. Installation for the distribution of the so called production of the glycerol fraction – liquid biofuels in plants of "WOMAREX" Ltd. in Giebułtów: KNOW-HOW of technology distribution of the so called glycerol fraction from the production of alkyl esters production of PUFA to the ingredients and their processing in the useful products

7. Start of the investment cycle of great fuel - energy - chemical CPECH in Namysłów called the ECE NAMYSŁÓW for financial holding and company "EMCCO ENERY GROUP" Ltd.: Investment in mass scale / eg. near 100 000 t / year of ethyl esters of PUFA, electric power 110 MW, 165 MW thermal power, 45 million m^3 biogas, 10 000 t of glycerol, 1000 t potassium acid phthalate, biodegradable lubricants and some other chemical products; Most of technologies in the ECE Namysłów is related to Andrzej Vogt authorship.

- pilot - scale installations:

1. Pilot-scale installation for the production of new generation of composite magnetic materials absorbing the energy of electromagnetic waves – Chemistry Department of University of Wroclaw;

2. Pilot-scale installation for the for the production of new generation new generation of land stabilizers loam and clay called “STABIDROX” for the “INWEST HOLDING” from Katowice at the Chemistry Department of University of Wroclaw and called “STABIBUD” for the “STABIBUD” Ltd. in Nysa.

3. Pilot-scale installation for the for the production of ethyl and methyl esters of higher fatty acids - liquid components of diesel biofuels - Chemistry Department of University of Wroclaw.

Participation in Project Realisation:

- ***granted projects:***

1. Model complexes as an example of agro-energy distributed cogeneration based on local and renewable energy sources; Project No POIG.01.01.02-00-016/08; 2009 **–** 2012; **Leader of 2.2 task;**

2. Sorcer /“stimulating obtaining results in communities in relation to energy-efficiency and renewables”/; Integrated Projects and Specific Targeted Research or Innovation Projects under the Sixth Framework Programme of the European Community; (2002-2006); within the CONCERTO project; 2006 – 2011; **Principal Investigator.**

3. Development of the basis for the manufacturing technology of devices made from plastic polymer absorbers of electromagnetic waves using a new generation EMCCO absorber; Project No. N 50302531/2979; 2006 – 2009; **Co-principal Investigator.**

4. Application of cavitation method in the production of a unique protein feed; PARP Innotech - Hi-Tech programme, No. 159645, **Co-investigator.**

5. Products and the manufacturing method of nutriceuticals based on acid ethyl fatty esters omega-3 fatty and omega-9; POIG programme; 2007–2013; No. POIG.01.04.00-24-004/11; 2012 – 2nd half of the 2014

6. Smart type magneticmaterials - sub-project of the "Nanocomposites and smart type materials"; WCB/EIT+PARP; 2010 – 2014.

- ***submitted projects proposals:***

1. New weapons and defence systems of directed energy; NCBiR; 2012 – 2016; **Co-investigator**.

2. New generation of mask system**;** POIG programme; 2007–2013, 1.3.1; 2012 – 2014; **Co-investigator**.

Participation in technological companies and activity in the economics vicinity:

1. HEXON Ltd., Wrocław,
2. EMCCO Ltd., Londyn,
3. EMCCO RESEARCH, Ltd., Wrocław,
4. EMCCO BIOFUEL Ltd., Wrocław,
5. EMCCO GROUP Ltd., Wrocław,
6. INNOTECH Ltd., Wrocław,
7. STABIBUD Ltd., Wrocław,
8. FLC PHARMA Ltd., Wrocław,
9. EMCCO ENERGY GROUP SA, Wrocław.

- **Member** of the Supervisory Board in the years 2009 -2010 in chemical plants CHEM- ZAK SA at the Nitrogen Plant in Kędzierzyn;

- **Vice-Chairman** of the Supervisory Board in the Company EMCCO ENERGY GROUP SA Wroclaw.