

# Curriculum Vitae

## PERSONAL INFORMATION:

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Vasiliki I. Syngouna

Postdoctoral Research Associate

Technical University of Crete

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Environmental Engineering Laboratory (TUCeeL),  
73100 Chania, Greece

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## EDUCATION:

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**PhD**, Doctor of Philosophy, 2012

Ph.D. Dissertation: Inactivation and Transport of Biocolloids in Porous Media

Ph.D. Advisor: Prof. C.V. Chrysikopoulos

University of Patras, Polytechnic School, Greece

Department of Civil Engineering, Environmental Engineering Laboratory

**M.Sc.**, Master of Science Diploma, 2005 (current grade point average: 9.6 {out of 10.0})

MSc in Sustainable Management of Protected Areas"

University of Ioannina (now University of Patras)

Department of Environmental Science and Natural Resources Management

**BS**, Bachelor, 2003 (current grade point average: 8.06 {out of 10.0})

University of Ioannina (now University of Patras)

Department of Environmental Science and Natural Resources Management

## RESEARCH INTERESTS:

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1. Experimental as well as theoretical aspects of contaminant transport in porous media
2. Fate and transport of viruses in subsurface formations
3. Protection of groundwater and drinking water supplies from microbial contamination
4. Biocolloid-surface interactions in aqueous systems
5. Environmental and health risks linked to engineered nanomaterials
6. Environmental nanotechnology
7. Soil nanoremediation
8. Water and wastewater treatment
9. Anti-pollution technology

## ACADEMIC EXPERIENCE:

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*Current position:*

2017- Postdoctoral Research Associate, School of Environmental Engineering, Technical University of Crete, Chania, Greece

*Previous positions:*

2016-2017 Postdoctoral Fellow, IKY Fellowship of Excellence for Postgraduate Studies in Greece-Siemens Program, of Environmental Engineering, Technical University of Crete, Chania, Greece

2015-2016 Teaching Associate, Technological Educational Institute of Ionian Islands, School of Technological Applications, Department of Environmental Technologists (A.T.), Zante, Greece

2013-2015 Postdoctoral Fellow, Department of Civil Engineering, Polytechnic School, University of Patras, Patras, Greece

2007-2012 Research and Teaching Assistant, Department of Civil Engineering, Polytechnic School, University of Patras, Patras, Greece

### PROFESSIONAL MEMBERSHIPS:

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- European Geosciences Union (EGU)
- “BIOMET” FATE and TRANSPORT of BIOCOLLOIDS in ENVIRONMENTAL SYSTEMS University of Patras Intra-Network
- “ARYs” DEVELOPMENT AND EVALUATION OF SORBENT MATERIALS FOR ENVIRONMENTAL APPLICATIONS University of Patras Intra-Network

### RESEARCH EXPERIENCE:

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1/2017-8/2017

Postdoctoral Research Fellow. Postdoctoral research on "Cotransport of nanomaterials and pathogens in groundwater aquifers" supported by the State Scholarship Foundation ("IKY Fellowships of Excellence for Postgraduate Studies in Greece-Siemens Program 2016-2017") in the framework of the Hellenic Republic-Siemens Settlement Agreement. School of Environmental Engineering, Technical University of Crete. Scientific supervisor: Dr. C.V. Chrysikopoulos.

02/02/2015-30/11/2015

Postdoctoral Researcher & Project Manager (Contract), "Pepper Mild Mottle Virus as indicator of fecal pollution in water environments of Western Greece Region" under the Action "Research and Technology Development Innovation Projects"-AgroETAK, MIS 453350 in the framework of the Operational Program "Human Resources Development". It is co-funded by the European Social Fund through the National Strategic Reference Framework (Research Funding Program 2007-2013) coordinated by the Hellenic Agricultural Organization-DEMETER/Institute of Horticulture and Livestock Plant / Plant Protection Department in Patras, Scientific supervisor: Dr. Ioannis Manoussopoulos

01/02/2013-28/02/2015

Postdoctoral Researcher & Project Manager (Contract), "BioNFate-Fate and transport of biocolloids and nanoparticles in groundwater and effects of polluted water on public health". Research Committee, National Strategic Reference Framework (NSRF)-Research Funding Program: ARISTEIA I (No. 1185). Budget 500,000 €. Project coordinator Dr. C.V. Chrysikopoulos. Department of Civil Engineering, University of Patras, Greece.

01/09/2010-16/07/2012

Researcher PhD, "Inactivation and transport of biocolloids in porous media", Budget 45,000 €, Research Committee, National Strategic Reference Framework (NSRF)-Research Funding Program: Heracleitus II. Project coordinator Dr. C.V. Chrysikopoulos. Department of Civil Engineering, University of Patras, Greece. □

1/05/2007-31/5/2010

Researcher PhD, "Study of virus (bacteriophage) transport in saturated and unsaturated aquifers", Research Committee, "K. Karatheodori" Project, Budget 33,000 €. Project coordinator Dr. C.V. Chrysikopoulos, Department of Civil Engineering, University of Patras, Patras, Greece.

01/01/2007-30/07/2008

Researcher (Contract) "PRIMAC - Integrated actions in order to protect coastal areas from anthropogenic pollutions and for groundwater restoration by reversing the seawater intrusion in coastal aquifers," INTERREG IIIA Greece-Italy 2000-2006. Budget 932,000 €, Department of Civil Engineering, University of Patras, Greece, Consiglio Nazionale Delle Ricerche, Istituto di Ricerca Sulle Acque, Bari, Italy

01/01/2007-31/03/2008

Researcher (Contract), "Investigation of Groundwater Contamination by Viruses During Infiltration of Recycled Water: Laboratory and Field Experiments," Hellenic Republic Ministry of Development: General Secretariat For Research & Development Project, 2006-2008, Budget 60,000 €, Research Committee, Project coordinator Dr. C.V. Chrysikopoulos. Department of Civil Engineering, University of Patras, Greece.

01/11/2005-31/12/2006

Researcher (Contract), "Reduction of Environmental Pollution with the Employment of Solar Powered Combustion of Industrial Waste," Hellenic Ministry of National Education and Religious Affairs: Archimedes II Project, 2005-2007, Budget 75,000€, Research Committee, Project coordinator Dr. A.Ch. Yiannopoulos, Department of Civil Engineering, University of Patras, Greece

01/10/2005-31/12/2006

Researcher (Contract), "Development of Methodologies for Rapid Prediction and Evaluation of River Contamination," Hellenic Ministry of National Education and Religious Affairs: Pythagoras II Project, 2005-2007, Budget 50,000€, Research Committee, Project coordinator Dr. P.C Yannopoulos, Department of Civil Engineering, University of Patras, Greece.

## TEACHING EXPERIENCE:

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2016

Teaching Associate: Technological Educational Institute of Ionian Islands, School of Technological Applications, Department of Environmental Technologists (A.T.), Specialization in Natural Environment Technologies, Zante, Undergraduate Courses

- Environmental Chemistry: (Winter 2016- Contract 78 hours)

2014-2015

Teaching Associate: University of Patras, Department of Civil Engineering, Undergraduate Courses

- Water purification: Undergraduate Level 5 Semester (Fall 2014-Contract 195 hours)

2007-2011

Teaching Assistant: University of Patras, Department of Civil Engineering, Undergraduate Courses

- Water purification : Undergraduate Level 5 Semester  
(Fall 2011- Contract 80 hours, Fall 2010- Contract 210 hours, Fall 2009- Contract 154.9 hours, Fall 2008- Contract 192 hours, Fall 2007- Contract 87 hours)
- Special Topics in Environmental Engineering: Undergraduate Level 10 Semester  
(Winter 2010- Contract 56 hours, Winter 2009- Contract 50 hours, Winter 2008- Contract 30 hours)

## PEER REVIEWED JOURNAL PUBLICATIONS: (15) (WOS h-index: 11, Sum of Times Cited without self-citations: 257)

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1. **Syngouna V I.**; Chrysikopoulos C.V. MS2 attachment onto TiO<sub>2</sub> nanoparticles: Effect of light and quartz sand presence. 2017 In preparation....
2. **Syngouna V I.**; Giannadakis G.I.; Chrysikopoulos C.V. Interaction of graphene oxide nanoparticles with quartz sand in the presence of montmorillonite colloids. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*. Submitted, 2017.
3. **Syngouna V. I.**; Chrysikopoulos C.V.; Kokkinos P.; Tselepi, M.A; Vantarakis A. Cotransport of human adenoviruses with clay colloids and TiO<sub>2</sub> nanoparticles in saturated porous media: Effect of flow velocity. *Science of the Total Environment*, 598, 160-167, 2017.  
**JCR Journal I. F. (2016):** 4.9 Times Cited: 0
4. **Syngouna V I.**; Chrysikopoulos C.V. Inactivation of MS2 bacteriophage by titanium dioxide nanoparticles in the presence of quartz sand with and without ambient light. *Journal of Colloid and Interface Science*, 497, 117-125, 2017  
**JCR Journal I. F. (2016):** 4.233 Times Cited: 0
5. **Syngouna V I.**; Chrysikopoulos C.V. Cotransport of clay colloids and viruses through water-saturated vertically oriented columns packed with glass beads: Gravity effects, *Science of the Total Environment*, 545, 210-218, 2016  
**JCR Journal I. F. (2016):** 4.9 Times Cited: 2
6. Bellou, M.; **Syngouna, V.I.**; Tselepi, M.A; Kokkinos P. A; Paparrodopoulos S. C, Chrysikopoulos C. V.; A. Vantarakis. Interaction of human adenovirus and coliphages with kaolinite and bentonite. *Science of the Total Environment*. 517, 86-95, 2015. <http://dx.doi.org/10.1016/j.scitotenv.2015.02.036>  
**JCR Journal I. F. (2015):** 3.976 Times Cited: 8
7. Kokkinos P.; **Syngouna V. I.**; Tselepi M. A.; Bellou M.; Chrysikopoulos C. V.; Vantarakis A. Transport of Human Adenoviruses in Water Saturated Laboratory Columns. *Food and Environmental Virology*. 7 (2), 122-131 DOI 10.1007/s12560-014-9179-8, 2015.  
**JCR Journal I. F. (2015):** 2.338 Times Cited: 2

8. **Syngouna V I.**; Chrysikopoulos C.V. Experimental investigation of virus and clay particles cotransport in partially saturated columns packed with glass beads. *Journal of Colloid and Interface Science*, 440, 140-150, 2015  
**JCR Journal I. F. (2015):** 3.782      Times Cited: 15
9. Chrysikopoulos C. V.; **Syngouna V.I.** Effect of gravity on colloid transport through water-saturated columns packed with glass beads: Modeling and experiments. *Environmental Science & Technology*. 48, 6805-6813, 2014.  
**JCR Journal I. F. (2014):** 5.257      Times Cited: 27
10. Mitropoulou P.N.; **Syngouna V. I.**; Chrysikopoulos C.V. Transport of colloids in unsaturated packed columns: Role of ionic strength and sand grain size. *Chemical Engineering Journal*. <http://dx.doi.org/10.1016/j.cej.2013.07.093>, 232, 237-248, 2013  
**JCR Journal I. F. (2013):** 3.473      Times Cited: 16
11. Chrysikopoulos C. V.; Manariotis, I.D.; **Syngouna V I.** Virus inactivation by high frequency ultrasound in combination with visible light. *Colloids and Surfaces B: Biointerfaces*. <http://dx.doi.org/10.1016/j.colsurfb.2013.01.038>, 107, 174-179, 2013  
**JCR Journal I. F.(2013):** 3.554      Times Cited: 11
12. **Syngouna V I.**; Chrysikopoulos C.V. Cotransport of clay colloids and viruses in water saturated porous media. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*. 416, 56– 65, 2013.  
**JCR Journal I. F. (2013):** 2.108      Times Cited:28
13. Chrysikopoulos C.V.; **Syngouna V.I.**, Vasiliadou I.A.; Katzourakis V.E. Transport of *Pseudomonas putida* in a three-dimensional bench scale experimental aquifer. *Transport in Porous Media*. 94, 617-642, doi:10.1007/s11242-012-0015-z, 2012.  
**JCR Journal I. F. (2012):** 1.551      Times Cited: 12
14. Chrysikopoulos C. V.; **Syngouna V.I.** Attachment of bacteriophages MS2 and  $\Phi$ X174 onto kaolinite and montmorillonite: extended-DLVO interactions. *Colloids and Surfaces B: Biointerfaces*. 92, 74– 83, 2012.  
**JCR Journal I. F. (2012):** 3.554      Times Cited: 39
- 15b. **Syngouna, V.I.**; Chrysikopoulos, C.V., Transport of biocolloids in water saturated columns packed with sand: Effect of grain size and pore water velocity, *Journal of Contaminant Hydrology*, 129-130, 11–24, doi:10.1016/j.jconhyd.2012.01.010, 2012  
**JCR Journal I. F. (2012):** 2.324      Times Cited:13
- 15a.**Syngouna, V.I.**; Chrysikopoulos, C.V. Transport of biocolloids in water saturated columns packed with sand: Effect of grain size and pore water velocity. *Journal of Contaminant Hydrology*. 126, 301-314, 2011.  
**JCR Journal I. F. (2011):** 2.324      Times Cited: 41
16. **Syngouna, V.I.**; Chrysikopoulos, C.V Interaction Between Viruses and Clays in Static and Dynamic Batch Systems. *Environmental Science & Technology*. 44, 4539–4544, 2010.  
**JCR Journal I. F. (2010):** 4.827      Times Cited: 45

## INTERNATIONAL CONFERENCE PRESENTATIONS: (47)

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### Publications in Conference Proceedings: (12)

1. Chrysikopoulos, C.V., V.E. Katzourakis, and **V.I. Syngouna**, Transport of dense colloids in porous media, *9th World Congress, Water Resources Management in a Changing World: Challenges and Opportunities (EWRA 2015)*, Istanbul, Turkey, P\_4\_2, 2015
2. **Syngouna, V.I.**, and C.V. Chrysikopoulos. Cotransport of viruses and clay particles in unsaturated porous media (Full paper), *Proceedings of the 4th International Conference on Industrial and Hazardous Waste Management* Chania, Crete, Greece,P32, pp1-8, 2014.
3. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Cotransport of clay colloids and viruses through both horizontal and vertical water-saturated columns: Downward and upward flows (Full paper), *Proceedings of the international conference Protection and Restoration of the Environment XII, Skiathos, Greece*, 478-483, 2014
4. Chrysikopoulos, C.V., and **V.I. Syngouna**, Investigation of gravity effect on biocolloid and colloid transport through water-saturated porous media (Full paper), *Proceedings of the international conference Protection and Restoration of the Environment XII, Skiathos, Greece*, 472-477, 2014.

5. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Bacteriophages as faecal indicators in environmental systems: Historical perspectives and recent uses, *IWA Regional Symposium on Water, Wastewater and Environment: Traditions and Culture*, e-Proceedings, edited by I.K.Kalavrouziotis, and A.N. Angelakis, Patras, Greece, pp. 1109-1120, 2014.
6. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Virus attachment onto clay colloids: XDLVO interactions. (Full paper), *Proceedings of the international conference Protection and Restoration of the Environment XI. Thessaloniki*, Greece, 2012.
7. **Syngouna, V.I.**; Aravantinou A.F.; C.V. Chrysikopoulos, Effect of pore water velocity and grain size on biocolloid transport. (Full paper), *Proceedings of the international conference Protection and Restoration of the Environment XI. Thessaloniki*, Greece, 2012.
8. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Grain size and water velocity combined and synergistic effects on biocolloid transport. *Eurosoil 2012. Soil science for the benefit of mankind and environment. 4th international congress of the European Confederation of Soil Science Societies (ECSSS)*. S1108-2. Bari-Italy, 2-6 July, 2012.
9. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Transport of Pathogens in water saturated sand columns. (Full paper), *Proceedings of the 9th international hydrogeological congress of Greece. 4th MEM Workshop on the Hydrology of fissured Rocks. Advances in the Research of Aquatic Environment. Volume 2*. pp 417-425. Kalavrita, October 5-8, 2011.
10. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Effect of aquatic chemistry on virus sorption onto clays, (Full paper) *Proceedings of the 2nd International Conference Hazardous and Industrial Waste Management, Chania-Crete*, Greece, 2010.
11. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Bacteriophage MS2 and ΦX174 sorption onto clays. (Full paper), *Proceedings of the international conference Protection and Restoration of the Environment X. Corfu (Kerkyra) Greece*, PRE1095ACT, 2010.
12. Yiannopoulos, A.Ch., **V.I. Syngouna**, A.A. Bloutsos, I.D. Manariotis, Yannopoulos, P.C., and C.V. Chrysikopoulos, *Solar reactor for environmental applications: Preliminary design*, *Proceedings of the international conference Protection and Restoration of the Environment VIII, Chania, Crete, Greece*, P064, 2006.

#### Conference Abstracts-Oral presentations: (6)

13. Chrysikopoulos, C.V., V.E. Katzourakis, and **V.I. Syngouna**, Colloid transport in water saturated porous media: dispersivity, cotransport and gravity effects, (Abstract), *7th International Conference on Porous Media (InterPore)*, Padova, Italy, M4.4/2, 2015 (Invited Presentation).
14. Chrysikopoulos, C.V., Manariotis I.D., and **V.I. Syngouna**. Advances in colloid and biocolloid transport in porous media: particle size-dependent dispersivity and gravity effects, (Abstract), *EGU, European Geoscience Union General Assembly 2012 Vienna, Austria*, HS8.1.7/EGU2014-6832, 2014 □
15. Bellou, M., A. Vandarakis, S. Paparopoulos, **V. Syngouna**, and C.V. Chrysikopoulos, Interaction between human adenoviruses and clays in static and dynamic batch systems, *V International Conference on Environmental, Industrial and Applied Research – BioMicroWorld2013*, Madrid, Spain, Code 439, 2013
16. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Virus attachment onto clay colloids: Batch and Transport Experiments, *Eurosoil 2012. Soil science for the benefit of mankind and environment. 4th international congress of the European Confederation of Soil Science Societies (ECSSS)*.S11.08-P-12. Bari-Italy, 2-6 July, 2012
17. **Syngouna, V.I.**, and C.V. Chrysikopoulos. Transport of viruses in water saturated columns packed with sand: Effect of pore water velocity, sand grain size, and suspended colloids, *EGU, European Geoscience Union General Assembly 2012 Vienna, Austria*, HS8.1.5/ EGU2012-37, 2012.
18. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Interaction between viruses and clays in static and dynamic batch systems, (Abstract), *IAHR International Groundwater Symposium*, Valencia, Spain, 287-288., Valencia, Spain, 2010.

#### Conference Abstracts-Poster Presentations: (29)

19. Giannadakis G.I; Chrysikopoulos C.V; **Syngouna V. I.** Interaction of graphene oxide nanoparticles with quartz sand in presence of montmorillonite colloids (Abstract), *EGU, European Geoscience Union General Assembly 2017 Vienna, Austria*, HS8.1.6/ EGU2017-10650, 2017.Submitted

20. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Effect of ambient light on MS2 inactivation by TiO<sub>2</sub> nanoparticles in the presence of quartz sand (Abstract), *EGU, European Geoscience Union General Assembly 2017 Vienna, Austria*, HS8.1.6/ EGU2017-1808-1, 2017. Submitted
21. Chrysikopoulos C. V. **Syngouna V. I.**, Kokkinos P., Tselepi M. A., Kartoudis, A., James, S.C., Vantarakis A., Cotransport of human adenovirus with clay colloids and TiO<sub>2</sub> nanoparticles in porous media (Abstract), *Transactions, American Geophysical Union, San Francisco, USA*, H23C-1555, 2016.
22. **Syngouna V. I.**, Kokkinos P., Tselepi M. A., Kartoudis, A., Vantarakis A., Chrysikopoulos C. V. Experimental investigation of human adenovirus cotransport with clay colloids and TiO<sub>2</sub> nanoparticles in water saturated porous media (Abstract), *EGU, European Geoscience Union General Assembly 2016 Vienna, Austria*, HS8.1.6/ EGU2016-1629, 2016.
23. Kokkinos P, **Syngouna VI**, Tselepi MA, Bellou M, Chrysikopoulos CV, and Vantarakis A. Transport of viral faecal indicators in saturated porous media (Abstract), *18th International Symposium on Health-Related Water Microbiology, WaterMicro2015*, Lisbon, Portugal, 2015
24. Bellou M.I., **V. I. Syngouna**, M. A. Tselepi, P.A. Kokkinos, S. C. Paparrodopoulos, A. Vantarakis, C. V. Chrysikopoulos "Interaction of human adenoviruses and coliphages with kaolinite and bentonite" (Abstract), International Conference: "Global Summit on Virology 2015" Dubai, UAE, 2015
25. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Clay colloids and viruses cotransport through vertically oriented porous media, (Abstract), *5th International Colloids Conference, Colloid and Interface Sciences for a Brighter Future, Amsterdam, the Netherlands*, COLL2015-0683-P255, 2015.
26. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Effect of gravity on virus and clay colloid cotransport through vertical water-saturated columns (Abstract), *EGU, European Geoscience Union General Assembly 2015 Vienna, Austria*, HS8.1.6/ EGU2015-6911, 2015.
27. Kokkinos, P., **V.I. Syngouna**, M. Tselepi, M. Bellou, C.V. Chrysikopoulos and, A. Vantarakis. Transport of human adenoviruses in porous media (Abstract), *EGU, European Geoscience Union General Assembly 2015 Vienna, Austria*, HS8.1.6/ EGU2015-3433, 2015.
28. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Cotransport of viruses and clay particles in water saturated and unsaturated porous media, (Abstract), *Transactions, American Geophysical Union, San Francisco, USA*, H31C-0626, 2014.
29. Kokkinos, P., M. Tselepi, **V.I. Syngouna**, C.V. Chrysikopoulos and, A. Vantarakis, Transport of human adenoviruses in water saturated laboratory columns, (Abstract), VP59, *International Society for Food and Environmental Virology (ISFEV) Corfu, Greece*, 2014.
30. Bellou, M., **V.I. Syngouna**, A. Vantarakis and C.V. Chrysikopoulos, Experimental study of human Adenoviruses interactions with TiO<sub>2</sub> nanoparticles, (Abstract), VP17, *International Society for Food and Environmental Virology (ISFEV) Corfu, Greece*, 2014.
31. **Syngouna, V.I.**, M. Bellou, A. Vantarakis and C.V. Chrysikopoulos, Virus inactivation and attachment onto TiO<sub>2</sub> nanoparticles, (Abstract), VP54, *International Society for Food and Environmental Virology (ISFEV) Corfu, Greece*, 2014.
32. Bellou, M., **V. Syngouna**, S. Paparrodopoulos, A. Vantarakis and C.V. Chrysikopoulos, The impact of dynamic clay system on the infectious viruses, (Abstract), P0442, *24th European Congress of Clinical Microbiology and Infectious Diseases (ECCMID)*, Barcelona, Spain, 2014
33. Chrysikopoulos C.V., Manariotis I.D., **V.I. Syngouna**, Advances in colloid and biocolloid transport in porous media: particle size-dependent dispersivity and gravity effects (Abstract), *EGU, European Geoscience Union General Assembly 2014 Vienna, Austria*, HS8.1.7/EGU2014-6832, 2014
34. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Experimental investigation of viruses and clay particles cotransport in unsaturated porous media (Abstract), *EGU, European Geoscience Union General Assembly 2014 Vienna, Austria*, HS8.1.7/ EGU2014-3470, 2014
35. Bellou M., **V. Syngouna**, S. Paparrodopoulos, A. Vantarakis, and Constantinos Chrysikopoulos. Experimental study of Human Adenoviruses interactions with clays (Abstract), *EGU, European Geoscience Union General Assembly 2014 Vienna, Austria*, HS8.1.7/EGU2014-13645, 2014 Submitted
36. Chrysikopoulos, C.V., and **V.I. Syngouna**, Biocolloid and colloid transport through water-saturated columns packed with glass beads: Effect of gravity, (Abstract), *Transactions, American Geophysical Union, San Francisco, USA*, H33C-1378, 2013

37. Mitropoulou P.N.; **Syngouna V. I.**; Chrysikopoulos C.V. The role of ionic strength and grain size on the transport of colloids in unsaturated sand columns, (Abstract), *EGU, European Geoscience Union General Assembly 2013 Vienna, Austria*, HS8.1.6/R353-EGU2013-1563, 2013.
38. Chrysikopoulos C.V. and **Syngouna, V.I.**, Cotransport of clay colloids and viruses in water saturated columns packed with glass beads, (Abstract), *EOS, Transactions, American Geophysical Union, San Francisco, USA*, H13E-1407, 2012
39. Chrysikopoulos C.V. and **V.I. Syngouna**. Attachment of bacteriophages MS2 and PhiX174 onto kaolinite and montmorillonite: extended-DLVO interactions (Abstract), *EGU, European Geoscience Union General Assembly 2012 Vienna, Austria*, HS8.1.5/A155-EGU2012-1317, 2012.
40. Vasiliadou I.A., V.E. Katzourakis, **V. I. Syngouna**, C.V. Chrysikopoulos, Experimental and theoretical study of *Pseudomonas putida* transport in a three-dimensional model aquifer, (Abstract), *EGU, European Geoscience Union General Assembly 2012 Vienna, Austria*, HS8.1.5/A154-EGU2012-1616, 2012.
41. Manariotis I.D., **V.I. Syngouna**, C.V. Chrysikopoulos. MS2 and ΦX174 inactivation by high frequency ultrasound. (Abstract), *EGU, European Geoscience Union General Assembly 2012 Vienna, Austria*, HS8.1.5/A167-EGU2012-3462, 2012.
42. Chrysikopoulos C.V. and **Syngouna, V.I.** Attachment of bacteriophages MS2 and ΦX174 onto kaolinite and montmorillonite: non-DLVO interactions, (Abstract), *EOS, Transactions, American Geophysical Union, San Francisco, USA*, H53B-1390, 2011
43. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Transport and retention of biocolloids in water saturated porous media: effect of water velocity and grain size, (Abstract), *EGU, European Geoscience Union General Assembly 2011 Vienna, Austria*, HS8.1.7/A458-EGU2011-1003, 2011.
44. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Determination of experimental and theoretical collision efficiencies for biocolloids migrating in water saturated columns packed with sand, (Abstract), *EGU, European Geoscience Union General Assembly 2011 Vienna, Austria*, HS8.1.7/A459-EGU2011-1004, 2011.
45. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Biocolloid transport in water saturated columns packed with sand, (Abstract), *EOS, Transactions, American Geophysical Union, San Francisco, USA*, H51F-0956, 2010.
46. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Effect of aquatic chemistry on virus sorption onto kaolinite and bentonite, (Abstract), *EGU, European Geoscience Union General Assembly 2010 Vienna, Austria*, HS7.4/A320-EGU2010-6758, 2010.
47. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Experimental study of MS2 and ΦX174 interactions with clays, (Abstract), *EOS, Transactions, American Geophysical Union, San Francisco, USA*, H53A-0912, 2009.
48. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Interaction between viruses and clays in static and dynamic batch systems, (Abstract), *EGU, European Geoscience Union General Assembly 2009 Vienna, Austria*, HS3.5/A104-EGU2009-3242, 2009.

#### **NATIONAL CONFERENCE PRESENTATIONS: (4)**

1. **Syngouna V. I.**, P. Kokkinos, E. Charalambous, K. Kalogeropoulos, and A. Vantarakis, Pepper Mild Mottle Virus as indicator of fecal pollution in water environments of Western Greece Region, *67th National Congress of the Greek Society of Biochemistry and Molecular Biology*, P095, 25-27 November, Ioannina, 2016.
2. **Syngouna, V. I.**, P. Kokkinos, A. Birba, , I. Lagogiannis, A. Vantarakis and I. N. Manoussopoulos. Investigation of the presence of PMMoV as plant pathogen and fecal indicator in water environments of Western Greece Region. *27th Congress of the Greek Society for Horticultural Science (GSHS)*, 27-29 September, Volos, Greece, 2015.
3. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Transport of viruses in water saturated porous media: Effect of various physicochemical parameters (grain size, pore water velocity, presence of colloids). 2o Joint Conference EYE-EEDYP. 12o GREEK HYDROTECHNIQUE UNION (EYE). 8o GREEK COMMITTEE ON WATER RESOURCES MANAGEMENT (EEDYP). 11 -13 October, Patras, Greece, 2012.
4. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Interaction between biocolloids (viruses) and porous media (clays) under various environmental conditions, 4rth Greek Symposium on Porous Media, 22-23 October, Patras, Greece, 2009

## **BOOK CHAPTERS: (1)**

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1. **Syngouna, V.I.**, and C.V. Chrysikopoulos, Transport of pathogens in water saturated sand columns, in *Advances in the Research of Aquatic Environment*, Volume 2, pp. 417-425, edited by N. Lambrakis, G.K. Stournaras, and K. Katsanou, Springer-Verlag, 2011.

## **REVIEWER OF INTERNATIONAL JOURNALS: (7)**

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1. *Desalination and Water Treatment* (2012) (1),
2. *Journal of Contaminant Hydrology* (2014) (1), (2015) (1), 2016 (1)
3. *Water Science and Technology* (2015) (1),
4. *Applied Clay Science* (2016) (1)
5. *Water* (2016) (1)
6. *Energies* (2017) (1)
7. *Applied Materials & Interfaces* (2017) (1)

## **SKILLS AND SHORT-COURSES OR WORKSHOPS:**

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- Computer Languages: PASCAL, Experienced in Visual Fortran
- Software Packages: Visual Modflow Pro3.1, Aquasim Pro, AutoCAD, Surfer 7.0, Adobe Photoshop 5, Corel Draw 11, Igor Pro, Origin, Lindo, SPSS for Windows, Statistica, Turboveg for Windows, Pcordwin, Megatab.
- Analytical Laboratory Techniques: Gas Chromatography (GC), High Performance Liquid Chromatography (HPLC), Ionic Chromatography (IC), Fluorescence Spectroscopy, UV-Vis Spectroscopy, Zeta potential and size analyser, Alkalinity, Hardness, BOD, COD, Phosphate, Nitrate, Sulphate Measurements, Turbidity, Jar Test., Bacterial and Viral cultures.
- Language Knowledge: English (very good oral and written communication skills, French (understanding)