Ashwin Kumar RAJAGOPALAN

Lecturer in Chemical Engineering, The University of Manchester

Born on December 23rd, 1991 in Neyveli, Tamil Nadu, INDIA
Citizen of INDIA

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EDUCATIONAL QUALIFICATIONS

Doctor of Sciences of ETH Zurich (Dr. sc. ETH Zurich) **(Oct. 2015 - Jul. 2019)**
Thesis Title: "*A Dual Projection Imaging System To Characterize Crystallization Processes: Design and Applications*"
Advisor: Prof. Dr. Marco Mazzotti
Co-advisor: Prof. Dr. Manfred Morari
Separation Processes Laboratory, Institute of Process Engineering
Department of Mechanical and Process Engineering
ETH Zurich, Zurich, SWITZERLAND
Date of doctoral examination: July 23rd, 2019

Master of Science (MSc) in Chemical Engineering **(Sept. 2013 - Aug. 2015)**
Thesis Title: "*Material selection and process design for adsorptive CO_2 capture*"
Advisor: Prof. Dr. Arvind Rajendran
Laboratory for Advanced Separation Processes
Department of Chemical and Materials Engineering
University of Alberta, Edmonton, Alberta, CANADA

Bachelor of Technology (B. Tech.) in Chemical Engineering **(Aug. 2009 - May 2013)**
Department of Chemical Engineering
National Institute of Technology Tiruchirappalli
Tiruchirappalli, Tamil Nadu, INDIA

PROFESSIONAL APPOINTMENTS

Lecturer (Academic & Research) **(Sept. 2021 -)**
Department of Chemical Engineering
The University of Manchester, Manchester, UNITED KINGDOM

SNSF Early Postdoc.Mobility Fellow **(Oct. 2020 - Aug. 2021)**
Funding Agency: Swiss National Science Foundation (SNSF)
Advisor: Prof. Dr. Camille Petit
Multifunctional Nanomaterials Group
Faculty of Engineering, Department of Chemical Engineering
Imperial College London, London, UNITED KINGDOM

Postdoctoral Research Associate **(Aug. 2019 - Sept. 2020)**
Advisor: Prof. Dr. Marco Mazzotti
Separation Processes Laboratory, Institute of Process Engineering
Department of Mechanical and Process Engineering
ETH Zurich, Zurich, SWITZERLAND

FELLOWSHIPS & GRANTS

From Independent Career at the University of Manchester

- DTP CASE Studentship *AstraZeneca*, **2022-2026**. (Secured £32,000 and a DTP PhD student, UoM P code:)

Prior to Independent Career

- Swiss National Science Foundation *Early.Postdoc Mobility* fellowship, **2020-2022**. (Secured CHF 84,400, Project Number: 191875)

AWARDS & RECOGNITION

- EFCE Excellence Award in Crystallization for the best doctoral thesis, European Federation of Chemical Engineering, **2020**.
- S. H. Ibrahim Memorial Award for Best Outgoing Student in Chemical Engineering, National Institute of Technology Tiruchirappalli, **2013**.

TEACHING EXPERIENCE

The University of Manchester

- Advanced Separation Processes (4th Year MEng/MSc, CHEN40461/60461), **2022-**. (Class of 15+, $50\,\%$ of the module (Adsorption))
- Science of Formulation (4th Year MEng/MSc, CHEN40441/60441), **2022-**. (Class of 15+, $25\,\%$ of the module (Crystallization))
- Chemical Engineering Design Project 3 (MEng, CHEN30012, CHEN30022, CHEN30032), **2022-**. (Group of 6-7 masters students, supervising the group)

ETH Zurich

- Rate Controlled Separations in Fine Chemistry (151-0927-00L), **2017-2019**. (Class of 30, delivering one or two lectures per semester)
- Separation Process Technology (151-0926-00L), **2017-2019**. (Class of 30, delivering one or two lectures per semester)
- Practica in Process Engineering II (151-0958-00L), **2016-2018**

University of Alberta

- Mass Transfer (CHE318), **2014**. (Class of 50, delivering seminars during exercise hours)

MENTORING

From Independent Career at the University of Manchester

PhD Students

M2. Oleksandr Prykhodko (PhD student, cosupervised with Dr. Carlos Avendano), The University of Manchester, **2022** (*ongoing*).

M1. Petros Neoptolemou (PhD student, cosupervised with Dr. Aurora Cruz-Cabeza), The University of Manchester, **2021** (*ongoing*).

MEng/MSc Students

Mohammed Alsubeihi (MEng, **2023**), Mathushan Suganthan (MEng, **2023**)

External PhD Students

Anna Jaeggi (PhD student, cosupervised with Prof. Dr. Marco Mazzotti), ETH Zurich, **2020** (*ongoing*).

External BSc/MEng/MSc Students

Kimia Ramezani (MSc, **2022-23**, cosupervised with Dr. Sayed Alireza Hosseinzadeh Hejazi, Amirkabir University of Technology, Iran), Amir Mohammad Elahi (BSc/MSc, **2021-23**, cosupervised with Dr. Sayed Alireza Hosseinzadeh Hejazi, Amirkabir University of Technology, Iran).

Prior to Independent Career

ETH Zurich

Selin Güngör (MSc, **2020**), Anna Jaeggi (MSc, **2019**), Nick McDonald (MSc, **2019**), Ayoung Song (BSc, **2019**), Marta Fochesato (MSc, **2019**), Bianca Popa (BSc, **2019**), Igor Rombaut (MSc, **2019**), Johann Bartenstein (MSc, **2018**), Ramona Achermann (MSc, **2017**), Janik Schneeberger (MSc, **2016**)

RESEARCH OUTPUT

Publications in Peer-reviewed Scientific Journals (* indicates shared authorship, # indicates mentee, ‡ indicates corresponding author)

From Independent Career at the University of Manchester

J20. Neoptolemou, P.[#]; Vetter, T.; Cruz-Cabeza, A.; **Rajagopalan, A. K.**[‡] Combined imaging and chromatic confocal microscopy technique to characterize population of nonequant particles. *In Preparation*

J19. Elahi, A. M[#]; Hejazi, S. A. H.[‡]; **Rajagopalan, A. K.**[‡] Marrying Materials and Processes: A Superstructure Inspired Optimization Approach For Pressure Swing Adsorption Based Carbon Dioxide Capture Processes. *Submitted for publication*

J18. L'Hermitte, A.; Azzan, H.; Yio, M. H. N; **Rajagopalan, A. K.***; Danaci, D.; Hirosawa, T.; Isobe, T.; Petit, C. Effect of Surface Functionalization on the Moisture Stability and Sorption Properties of Porous Boron Nitride. *Submitted For Publication*

J17. Binel, P.; Jain, A.; Jaeggi, A.[#]; Biri, D.; **Rajagopalan, A. K.**; deMello, A. J.; Mazzotti, M. Online 3D Characterization of Micrometer-Sized Cuboidal Particles in Suspension. *Small Methods* **2022**, 2201018.

J16. Azzan, H.*; **Rajagopalan, A. K.***[‡]; L'Hermitte, A.; Pini, R.; Petit, C. Simultaneous Estimation of Gas Adsorption Equilibria and Kinetics of Individual Shaped Adsorbents. *Chem. Mater.* **2022**, 34 (15), 6671–6686.

J15. Bjelobrk, Z.; **Rajagopalan, A. K.**; Mendels, D.; Karamkar, T.; Parrinello, M.; Mazzotti, M. Sodium acetate solubility in solvent-antisolvent mixtures: A combined experimental and molecular dynamics simulations study. *J. Chem. Theory Comput.* **2022**, 18 (8), 4952–4959.

Prior to Independent Career

J14. **Rajagopalan, A. K.**; Petit, C. Material Screening for Gas Sensing using an Electronic Nose: Thermodynamic and Kinetic Considerations. *ACS Sens.* **2021**, 6 (10), 3808-3821.

J13. Jaeggi, A.[#]; **Rajagopalan, A. K.**; Morari, M.; Mazzotti, M. Characterizing Ensembles of Plate-like Particles via Machine Learning. *Ind. Eng. Chem. Res.* **2021**, 60 (1), 473-483.

J12. Bötschi, S.*; **Rajagopalan, A. K.***; Rombaut, I.[#]; Morari, M.; Mazzotti, M. From needle-like toward equant particles: A controlled crystal shape engineering pathway. *Comput. Chem. Eng.* **2019**, 131, 106581.

J11. Subraveti, S. G.; Pai, K. N.; **Rajagopalan, A. K.**; Wilkins, N. S.; Rajendran, A.; Jayaraman, A.; Alptekin, G. Cycle design and optimization of novel PSA cycles for pre-combustion CO_2 capture. *Appl. Energy* **2019**, 254, 113624.

J10. Bötschi, S.; **Rajagopalan, A. K.**; Morari, M.; Mazzotti, M. Feedback Control for the Size and Shape Evolution of Needle-like Crystals in Suspension. IV. Modeling and Control of Dissolution. *Cryst. Growth Des.* **2019**, 19 (7), 4029-4043.

J9. **Rajagopalan, A. K.**; Bötschi, S.; Morari, M.; Mazzotti, M. Feedback Control for the Size and Shape Evolution of Needle-like Crystals in Suspension. III. Wet Milling. *Cryst. Growth Des.* **2019**, 19 (5), 28452861.

J8. Balashankar, V. S.; **Rajagopalan, A. K.**; De Pauw, R.; Avila, A. M.; Rajendran, A. Analysis of a Batch Adsorber Analogue for Rapid Screening of Adsorbents for Postcombustion CO_2 Capture. *Ind. Eng. Chem. Res.* **2019**, 58 (8), 3314-3328.

J7. **Rajagopalan, A. K.**; Rajendran, A. The effect of nitrogen adsorption on vacuum swing adsorption based post-combustion CO_2 capture. *Int. J. Greenh. Gas Control* **2018**, 78, 437447.

J6. **Rajagopalan, A. K.**; Bötschi, S.; Morari, M.; Mazzotti, M. Feedback Control for the Size and Shape Evolution of Needle-like Crystals in Suspension. II. Cooling Crystallization Experiments. *Cryst. Growth Des.* **2018**, 18 (10), 6185-6196.

J5. Bötschi, S.; **Rajagopalan, A. K.**; Morari, M.; Mazzotti, M. Feedback Control for the Size and Shape Evolution of Needle-like Crystals in Suspension. I. Concepts and Simulation Studies. *Cryst. Growth Des.* **2018**, 18 (8), 4470-4483.

J4. Bötschi, S.*; **Rajagopalan, A. K.***; Morari, M.; Mazzotti, M. An Alternative Approach to Estimate Solute Concentration: Exploiting the Information Embedded in the Solid Phase. *J. Phys. Chem. Lett.* **2018**, 9 (15), 4210-4214.

J3. **Rajagopalan, A. K.***; Schneeberger, J.*#; Salvatori, F.; Bötschi, S.; Ochsenbein, D. R.; Oswald, M. R.; Pollefeys, M.; Mazzotti, M. A comprehensive shape analysis pipeline for stereoscopic measurements of particulate populations in suspension. *Powder Technol.* **2017**, 321, 479-493.

J2. **Rajagopalan, A. K.**; Avila, A. M.; Rajendran, A. Do adsorbent screening metrics predict process performance? A process optimisation based study for post-combustion capture of CO_2. *Int. J. Greenh. Gas Control* **2016**, 46, 76-85.

J1. **Kumar, A.**; Srivastava, D.; Agrawal, M.; Goel, A. Snapshot of PM Loads Evaluated at Major Road and Railway Intersections in an Urban Locality. *Int. J. Environ. Prot.* **2014**, 4 (1), 23-29.

Contributions to National/International Conferences (* indicates presenting author)

Oral Presentations

From Independent Career at the University of Manchester

O25. Jaeggi, A.*; Eckel, A-M.; Pini, R.; **Rajagopalan, A. K.**; Mazzotti, M. Predicting the Effect of Particle Shape on Random Packing: The Case of Nonequant Shapes. *American Institute of Chemical Engineers (AIChE) Annual Meeting,* Phoenix, USA, Nov. **2022**.

O24. **Rajagopalan, A. K.***; Azzan, H.; L'Hermitte, A.; Pini, R.; Petit, C. A Unified Characterization Pipeline for Gas Sorption in Porous Materials. *14th International Conference on the Fundamentals of Adsorption,* Broomfield, USA, May **2022**.

O23. Elahi, A. M; Hejazi, S. A. H.*; **Rajagopalan, A. K.** Superstructure-based optimization of adsorption processes: A solid path towards the best adsorbent-cycle combination. *14th International Conference on the Fundamentals of Adsorption,* Broomfield, USA, May **2022**.

O22. Binel, P.*; Biri, D.; Jaeggi, A.; Jain, A.; **Rajagopalan, A. K.**; deMello, A. ; Mazzotti, M. Estimating the Three Characteristic Lengths of Plate-like Particles in Suspension. *American Institute of Chemical Engineers (AIChE) Annual Meeting,* Boston, USA, Nov. **2021**.

O21. **Rajagopalan, A. K.***; Petit, C. Design of Porous Material based Electronic Nose for Gas Sensing: Impact of Adsorbent Equilibrium and Kinetics. *American Institute of Chemical Engineers (AIChE) Annual Meeting,* Boston, USA, Nov. **2021**.

O20. Elahi, S. A. M; **Rajagopalan, A. K.***; Hejazi, S. A. H. Marrying Materials and Processes: A Superstructure Inspired Optimization Approach for Pressure Swing Adsorption Processes for Pre-combustion CO_2 Capture. *American Institute of Chemical Engineers (AIChE) Annual Meeting,* Boston, USA, Nov. **2021**.

O19. **Rajagopalan, A. K.** A Dual Projection Imaging System To Characterize Crystallization Processes: Design and Applications. *21st International Symposium on Industrial Crystallization (ISIC-21),* Potsdam, Germany, Sep. **2021**. **EFCE EXCELLENCE AWARD IN CRYSTALLIZATION TALK**

O18. Jaeggi, A.*; **Rajagopalan, A. K.**; Mazzotti, M. Multidimensional Characterization of Platelets in Particulate Suspensions. *21st International Symposium on Industrial Crystallization (ISIC-21),* Potsdam, Germany, Sep. **2021**.

Prior to Independent Career

O17. Jaeggi, A.*; **Rajagopalan, A. K.**; Mazzotti, M. Size and Shape Characterization of Plate-like Crystals. *American Institute of Chemical Engineers (AIChE) Annual Meeting,* San Francisco, USA, Nov. **2020**.

O16. Bötschi, S.; **Rajagopalan, A. K.***; Morari, M.; Mazzotti, M. Controlled Manipulation of the Size and Shape of Needle-like Compounds in a Cyclic Process. *American Institute of Chemical Engineers (AIChE) Annual Meeting,* Orlando, USA, Nov. **2019**.

O15. **Rajagopalan, A. K.***; Bötschi, S.; Morari, M.; Mazzotti, M. Controlled Manipulation of Size and Shape of Needle-like Compounds Using Wet-Milling. *12th European Congress of Chemical Engineering (ECCE),* Florence, Italy, Sept. **2019**.

O14. **Rajagopalan, A. K.**; Bötschi, S.; Morari, M.; Mazzotti, M.* On the Manipulation of the Size and Shape of Needle-like Crystals. *British Association of Crystal Growth (BACG) 50th Annual Conference,* London, UK, Jul. **2019**. **INVITED TALK**

O13. Balashankar, V. S.*; De Pauw, R.; **Rajagopalan, A. K.**; Avila, A. M.; Rajendran, A.* Batch Adsorber based PSA Model for Rapid and Efficient Screening of Adsorbents in Post-Combustion CO_2 Capture. *68th Canadian Chemical Engineering Conference,* Toronto, Canada, Oct. **2018**.

O12. **Rajagopalan, A. K.***; Bötschi, S.; Morari, M.; Mazzotti, M. Experimental Implementation of a Model-Free Feedback Controller for the Size and Shape of Needle-like Crystals Growing in Suspension. *American Institute of Chemical Engineers (AIChE) Annual Meeting,* Pittsburgh, USA, Oct. **2018**.

O11. Bötschi, S.*; **Rajagopalan, A. K.**; Morari, M.; Mazzotti, M. Two Feedback Control Schemes for the Size and Shape of Needle-like Crystals Growing in Suspension. *American Institute of Chemical Engineers (AIChE) Annual Meeting,* Pittsburgh, USA, Oct. **2018**.

O10. Bötschi, S.; **Rajagopalan, A. K.**; Morari, M.; Mazzotti, M.* Size and shape feedback control for growth-dominated batch crystallization processes. *25th International Workshop on Industrial Crystallization (BIWIC),* Rouen, France, Sept. **2018**.

O9. Salvatori, F.*; **Rajagopalan, A. K.**; Bötschi, S.; Schneeberger, J.; Mazzotti, M. Selective manipulation of crystal shape by combined crystallization, milling, and dissolution stages - An approach for robust process design. *Separations Technology IX: New Frontiers in Media, Techniques, and Technologies,* Albufeira, Portugal, Mar. **2017**.

O8. **Rajagopalan, A. K.**; Avila, A. M.; Rajendran, A.* The importance of nitrogen co-adsorption on effectiveness of post-combustion CO_2 capture materials: A process optimization study, *American Institute of Chemical Engineers (AIChE) Annual Meeting,* San Fransisco, USA, Nov. **2016**.

O7. **Rajagopalan, A. K.**; Wilkins, N.; Pai, K. N; Subraveti, S. G. ; Rajendran, A.*; Jayaraman, A.; Alptekin, G. Optimization of a High Temperature PSA Process for Pre-Combustion CO_2 Capture., *American Institute of Chemical Engineers (AIChE) Annual Meeting,* San Fransisco, USA, Nov. **2016**.

O6. **Rajagopalan, A. K.**; De Pauw, R; Avila, A. M.; Rajendran, A.* Batch adsorber analogs for rapid screening of adsorbents for CO_2 capture. *American Institute of Chemical Engineers (AIChE) Annual Meeting,* San Fransisco, USA, Nov. **2016**.

O5. **Rajagopalan, A. K.**; De Pauw, R.; Avila, A. M.; Rajendran, A.* Screening Tools for adsorption based post-combustion CO_2 capture. *66th Canadian Chemical Engineering Conference,* Quebec City, Canada, Oct. **2016**.

O4. **Rajagopalan, A. K.***; Salvatori, F.; Ochsenbein, D. R.; Mazzotti, M. Toward the mitigation of growth rate dispersion through pretreatment of seed crystals. *30th Meeting of the European Crystallographic Association,* Basel, Switzerland, Aug. **2016**.

O3. Makhtoumi, P.*; Hejazi, S. A. H.; **Rajagopalan, A. K.**; Rajendran, A. Zero Length Column Measurements of Ethane in Na-ETS-10. *65th Canadian Chemical Engineering Conference,* Calgary, Canada, Oct. **2015**.

O2. **Rajagopalan, A. K.***; Estupinan, L.; Avila, A. M.; Rajendran, A. Process optimization based selection of adsorbents for post-combustion CO_2 capture. *65th Canadian Chemical Engineering Conference,* Calgary, Canada, Oct. **2015**.

O1. **Rajagopalan, A. K.***; Estupinan, L.; Avila, A. M.; Rajendran, A. A process optimization approach for adsorbent screening for post-combustion capture of CO_2. *Faculty of Engineering Graduate Research Symposium, University of Alberta,* Edmonton, Canada, Jun. **2015**.

Poster Presentations

From Independent Career at the University of Manchester

P13. Biri, D.*; Jaeggi, A.; Binel, P.; **Rajagopalan, A. K.**; Mazzotti, M. Size and Shape Modification of Plate-like Crystals using a Cyclical 3-Stage Process. *27th International Workshop on Industrial Crystallization (BIWIC),* Espoo, Finland, Sept. **2022**.

P12. Biri, D.*; Jaeggi, A.; Binel, P.; **Rajagopalan, A. K.**; Mazzotti, M. Modeling study of a 3-stage process for the shape manipulation of plate-like crystals. *7th International Conference on Population Balance Modelling (PBM 2022),* Lyon, France, May **2022**.

P11. **Rajagopalan, A. K.***; Bötschi, S.; Salvatori, F.; Binel, P.; Morari, M.; Mazzotti, M. Size and Shape Engineering of Needle-like Particles: Process Development and Process Control. *21st International Symposium on Industrial Crystallization (ISIC-21),* Potsdam, Germany, Sep. **2021**.

Prior to Independent Career

P10. **Rajagopalan, A. K.**; Petit, C. Designing a Porous Material based Electronic Nose for Gas Sensing. *Federation of European Zeolite Associations (FEZA) Conference,* Virtual, Jul. **2021**

P9. Binel, P.; Bötschi, S.; **Rajagopalan, A. K.**; Salvatori, F.; Morari, M.; Mazzotti, M. Monitoring Critical Process Parameters to Design and Control a Crystallization Process. *Foundations of Process Analytics and Machine Learning (FOPAM),* Raleigh, USA, Aug. **2019**.

P8. **Rajagopalan, A. K.**; Rajendran, A.* Its the Nitrogen, Stupid - The Importance of N_2 Adsorption on Adsorptive Postcombustion CO_2 Capture. *13th International Conference on the Fundamentals of Adsorption,* Cairns, Australia, May **2019**.

P7. **Rajagopalan, A. K.***; Rajendran, A. Adsorptive Postcombustion CO_2 Capture: Using Process Optimization to Guide Material Development. *Gordon Research Conference on Carbon Capture, Utilization and Storage,* Les Diablerets, Switzerland, May **2019**.

P6. Balashankar, V. S.*; De Pauw, R.; **Rajagopalan, A. K.**; Avila, A. M.; Rajendran, A.* Simplified Model: Post-Combustion Adsorbent Screening. *67th Canadian Chemical Engineering Conference,* Edmonton, Canada, Oct. **2017**.

P5. **Rajagopalan, A. K.***; Schneeberger, J.; Salvatori, F.; Bötschi, S.; Ochsenbein, D. R.; Oswald, M.; Mazzotti, M. 3D reconstruction and shape classification of crystals for measuring multi-dimensional particle size and shape distribution. *20th International Symposium on Industrial Crystallization (ISIC-20),* Dublin, Ireland, Sep. **2017**.

P4. **Rajagopalan, A. K.***; Bötschi, S.; Ochsenbein, D. R.; Morari, M.; Mazzotti, M. Characterizing and mitigating growth rate dispersion effects. *12th International Workshop of the Crystal Growth of Organic Materials,* Leeds, United Kingdom, Jun. **2016**.

P3. Avila, A. M.; **Rajagopalan, A. K.***; De Pauw, R.; Rajendran, A. Batch analogues and improved metrics for rapid screening of adsorbents for post-combustion CO_2 capture. *12th International Conference on the Fundamentals of Adsorption,* Friedrichshafen, Germany, May **2016**.

P2. **Rajagopalan, A. K.***; Avila, A. M.; Rajendran, A. Process Optimization based screening and design of adsorbent materials for post-combustion CO_2 capture. *12th International Conference on the Fundamentals of Adsorption,* Friedrichshafen, Germany, May **2016**. **AWARDED BEST-POSTER PRIZE**

P1. Goel, A.; **Ashwin Kumar, R.***; Agrawal, M.; Goel, N.; Yadav, N. Assessment of the air quality in Kanpur city 2011: Impact of traffic and construction activities near major intersections. *International Congress for Environment Research,* Surat, India, Dec. **2011**.

Softwares with Documented Use

S3. Simulator of the gas sensor and dynamic gas sorption model developed during the SNSF Early Postdoc.Mobility Fellowship at Imperial College London.

S2. Simulator of the batch adsorber analogue model proposed in "Analysis of a Batch Adsorber Analogue for Rapid Screening of Adsorbents for Postcombustion CO_2 Capture. *Ind. Eng. Chem. Res.* **2019**, 58 (8), 3314-3328."

S1. Maintainer and developer of the *Crystallization Analysis Toolbox* (CAT) developed in the group Prof. Mazzotti at ETH Zurich. CAT is an open-source software used by the crystallization community to solve population balance equations.

INVITED TALKS

From Independent Career at the University of Manchester

T6. **Rajagopalan, A. K.** Monitoring, Modeling, Design, and Control of Crystallization Processes. Syngenta UK Limited, Jealotts Hill International Research Centre, Jealotts Hill, United Kingdom, Sept. 2022.

T5. **Rajagopalan, A. K.** Process Design, Modeling and Control. *2022 Summer School on Crystallization, EFCE Working Party on Crystallization*, TU Dortmund, Dortmund, Germany, Jun. 2022.

T4. **Rajagopalan, A. K.** A Unified Pipeline to Characterize Textural and Adsorption Properties in Porous Materials. *Toward Net Zero Seminar*, Imperial College London, London, United Kingdom (webinar), Dec. 2021.

T3. **Rajagopalan, A. K.** Toward Sustainable Separation Processes. IBM Research, Warrington, United Kingdom (webinar), Oct. 2021.

Prior to Independent Career

T2. **Rajagopalan, A. K.** Toward Sustainable Separation Processes: The Role of Process Monitoring, Design, and Control. *Amirkabir University of Technology,* Tehran, Iran (webinar), Feb. 2021.

T1. **Rajagopalan, A. K.** 888 Days: Carbon capture to crystal growth. *National Institute of Technology Tiruchirappalli,* Trichy, India, Jan. 2016.

REVIEWING ACTIVITIES

- Industrial & Engineering Chemistry Research (2022 - present), Computers and Chemical Engineering (2021 - present), Crystal Growth & Design, (2020 - present), ACS Omega (2020 - present), Energies (2020 - present), Adsorption (2019 - present), Chemical Engineering Science (2018 - present), Separation Science and Technology (2018 - present)

MEMBERSHIPS

- International Adsorption Society (IAS), **2020 - present**
- American Institute of Chemical Engineers (AIChE), **2018 - present**

January, 2023
Manchester, United Kingdom