



**DAFTAR PUSTAKA**

- Alfionita, T & Rahadian, R 2019, 'Calcium Chloride ( $\text{CaCl}_2$ ) : Characteristics and Molecular Interaction in Solution', *Jurnal Pendidikan Kimia*
- Apriliana, N F, Malik, A B & Darminto 2021, 'Pengaruh Penambahan Larutan  $\text{MgCl}_2$  pada Sintesis Kalsium Karbonat Presipitat Berbahan Dasar Batu Kapur dengan Metode Karbonasi', *Jurnal Sains dan Seni ITS*, vol. 1, no. 1.
- Agustian, J, Hermida, L & Murtadho, P 2018, 'Optimasi Proses Hidrolisis Pati Tapioka Menggunakan Glukoamilase Termobilisasi pada Silika MCF 9.2T-3D Berdasarkan *Response Surface Methodology (Box Behnken Design)*', *Jurnal Teknik Kimia UPN Veteran Yogyakarta*, hh 1-7.
- Benston, W J, dkk 1997, 'Nucleation, Growth And Inhibition Of Barium Sulfate-Controlled Modification With Organic And Inorganic Additives', *Faraday Discuss*, vol. 95, hh 281-297.
- Box & Draper, N R 1987, *Empirical Model Building and Response Surfaces*, John Wiley & Sons, New York
- Cavazzuti, M 2008, *Optimization Methods: From Theory to Design Scientific and Technological Aspects in Mechanics*, Springer Heidelberg, New York
- Dera, N S 2018, 'Pengaruh pH Larutan Terhadap Nukleasi dan Pertumbuhan Kristal Barium Sulfat Didalam Pipa Beraliran Laminar: Pengamatan Kristal Menggunakan SEM-EDX dan XRD', *Journal of Infrastructure & Science Engineering*, vol. 1, no. 2, hh. 1-45.
- Dwiastuti, R & Ni Kadek, D P 2022, Aplikasi Metode Optimasi *Central Composite Design* dalam Formulasi Sediaan Gel Nanopartikel Lipid dengan Bahan Aktif 4-N-Butilresorcinol, *Jurnal Ilmiah Manuntung*, vol. 8, no. 1, hh. 71-8.
- Estiningsih, Y, Farikhin & Nikken, PP 2017, 'Perbandingan Metode Trust-Region dengan Metode Newton-Raphson Pada Optimasi Fungsi Non Linier Tanpa



- Kendala', *Jurnal Fakultas Matematika FSM Universitas Diponegoro*, vol. 1, no. 1, hh. 1-9.
- Handoko, E, Bambang, S & Frilla, R 2018, *Teknik Difraksi Sinar-X Dalam Analisis Struktur Kristal*, LPPM Universitas Negeri Jakarta, Jakarta
- Hennessy, A J B & G. M. Graham 2002, 'The Effect Of Additives On The Co-Crystallisation Of Calcium With Barium Sulfate', *J. Cryst. Growth*, vol. 237-239, no. 3, hh. 2153-2159.
- Khairunisa, L F, Asri, W & Sarifah, N 2019, 'Kajian Pengaruh Kecepatan Pengadukan terhadap Rendemen dan Mutu Kristal *Patchouli Alkohol Dengan Metode Cooling Crystallization*, *Jurnal Keteknik Pertanian Tropis dan Biosistem*, vol. 7, no. 1, hh. 55-66.
- Kresse, R dkk 2007, *Barium and Barium Compounds*, Wiley-VCH Verlag
- Kusumaningrum, A, Gunam, I D & Wijaya I M 2019, 'Optimasi Suhu dan pH Terhadap Aktivitas Enzim Endoglukanase Menggunakan *Response Surface Methodology (RSM)* ', *Jurnal Rekayasa dan Manajemen Agroindustri*, vol. 7, no. 2, hh. 243-253.
- Leeden, V, Kashchiev, D & Rosmalen, V 1992, 'Precipitation of Barium Sulfate: Induction Time and The Effect of an Additive on Nucleation and Growth', *Journal of Colloid and Interface Science*, vol. 152, no. 2, hh. 338-350.
- Matynia, A., Piotrowski, K., Koralewska, J 2005, 'Barium Sulfate Crystallization Kinetics in The Process of Barium Ions Precipitation by Means of Crystalline Ammonium Sulfate Addition', *Chemical Engineering and Processing*, vol. 44, no. 4, hh. 485-495.
- Merdhah, A B B & Abu, A M Y 2009, 'Laboratory Study on Precipitation of Barium Sulphate in Malaysia Sandstone Cores', *The Open Petroleum Engineering Journal*, vol. 2, no. 1, hh. 1-11.
- Munirah M & Subanar 2017, 'Kajian Terhadap Beberapa Metode Optimasi (*Survey of Optimization Methods*)', *JUITA*, vol. V, no. 1, hh. 45-50.



- Myers, R H & Montgomery, D C 1995, *Response Surface Methodology: Process and Product Optimization Using Designed Experiments*, John Wiley & Sons, New York
- Myers R H, Douglas C M & Christine M A 2009, *Response Surface Methodology*, John Wiley & Sons, Canada
- N.Karaman, dkk 2017, 'Scale Formation of Barium Sulfate in the Piping Flow System: Mineralogy and Morphology Evaluation', *Journal American Scientific Publishers*, vol. 23, no. 12, hh. 12243-12246.
- N.Karaman, dkk 2017, 'The Influence of Various Vibration Frequency on Barium Sulfate Scale Formation of Vibrated Piping System in The Presence Citric Acid', *Journal of Physics*, vol. 953, no. 012247.
- N.Karaman, dkk 2018, 'Scaling Mitigation of Barium Sulfate in Vibrated Piping Systems Using Ethylene Dyminetetraacetic Acid', vol. 24, no. 12, hh. 9726-9728.
- N.Karaman, dkk 2019, 'Effects of Five Green Inhibitors of Controlling Barite Crystal Growth in Flow-Induced Vibration in Pipe', *Rasayan J.Chem*, vol. 12, no. 4, hh. 1734-1743.
- N.Karaman 2020, 'Effects of Metal Oxides on the Crystallization of BaSo<sub>4</sub> in a Vibrated Batch Crystallizer System', *International Journal of Engineering and Advanced Technology (IJEAT)*, vol. 9, no. 3, hh. 3232-3236.
- Nurmaya, U M, dkk 2013, 'Optimasi Multirespon Dengan Menggunakan Metode Hybrid Fuzzy Goal Programming Dan Genetic Algorithm (Studi Kasus : Pemotongan Logam Pada Mesin Edm Sinking)', *Prosiding Seminar Nasional Manajemen Teknologi XVIII*, vol. 1, no. 1, hh. 1-11.
- Perec A 2021, 'Multiple Response Optimization of Abrasive Water Jet Cutting Process using Response Surface Methodology (RSM)', *Procedia Computer Science*, vol. 192, no. 2021, hh. 931-940.
- Perry, R.H. 2008, *Perry's Chemical Engineers Handbook*, The McGraw-Hill Companies, New York
-



## LAPORAN HASIL PENELITIAN

### Optimasi Penambahan Zat Aditif Terhadap Perolehan Kristal Barium Sulfat Menggunakan Metode RSM

---

- Putro, R & Mustapha, K 2013, 'Analisis Pengaruh Brand Reputation, Brand Competence dan Brand Liking Terhadap Trust in Brand Pada Konsumen Windows Phone Nokia di Surabaya', *Jurnal Studi Manajemen & Organisasi*, vol. 1, no. 2, hh. 178-185.
- Rahardjo 2020, *Pembentukan dan Pengendalian Kerak Mineral di Dalam Pipa*, Universitas Muhammadiyah Semarang, Semarang
- Ratnawati, S 2018, 'Aplikasi Response Surface Methodology (RSM) pada Optimasi Ekstraksi Kalsium Tulang Lele', *Jurnal Perikanan Universitas Gadjah Mada*, vol. 20, no. 1, hh. 41-48.
- Sugiyono 2017, *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*, Alfabeta, Bandung
- Suharso 2015 *Penanggulangan Kerak Edisi 2*, Graha Ilmu, Yogyakarta
- Syauqiah, I, Amalia, M & Kartini, H 2011, 'Analisis Variasi Waktu dan Kecepatan Pengadukan pada Proses Adsorpsi Limbah Logam Berat dengan Arang Aktif', *Jurnal Info Teknik*, vol. 12, no. 1, hh. 11-21.
- Wahyudi, D & San, G S 2001, 'Optimasi Proses Injeksi dengan Metode Taguchi', *Jurnal Teknik Mesin*, vol. 2, no. 1, hh. 24-28.
- Wildayati & Rahadian, Z 2019, 'Magnesium Klorida ( $MgCl_2$ ): Karakteristik dan Dinamika Molekuler Pada  $MgCl_2$ ', *Jurnal Pendidikan Kimia*
- Wyantuti, S, dkk 2020, 'Penerapan Desain Eksperimen Plackett-Burman dan Box-Behnken pada Analisis Voltametri Pulsa Diferensial untuk Penentuan Kadar Senyawa Kompleks Gd-DTPA', *Jurnal Penelitian Kimia*, vol. 16, no. 1, hh. 140-151.