

ALEX EROUJENETS

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PROFILE

- An engineer with more than 20 years' experience in the metallurgical, chemical, and gas industries;
- Awarded four patents & applied for three patents;
- Experienced in product development;
- Skilled in commissioning, troubleshooting, inspecting, and technical support for the metallurgical, chemical, electro-mechanical, hydraulic, and the electronic equipment;
- Skilled in the industrial and laboratory testing, data analysis and processing;
- Experienced in the quality assurance/control;
- Skilled in the CAD Software (AutoDesk Inventor, SolidWorks, AutoCad);
- Excellent communication, and interpersonal skills;
- A self-motivated problem solver, a well-organized, flexible and reliable person, a hard worker;
- Multilingual: English and Russian. Excellent in Technical English - Russian text & drawings translations.

RECENT PROFESSIONAL EXPERIENCE

- Self-employed, *AE Technology Service* – Vancouver, Canada** 2019 – PT
Hydraulic and electro-mechanical equipment servicing
- Science & Technology Developer, *Hydro Pacific Pumps* – Vancouver, Canada.** 2016 – 2018
2008 – 2011
- Developed a prototype for a polymer human-operated submersible pump for using in deep wells in some African countries;
 - Designed and developed the surface drive unit that powered the Hygr™ Fluid System for pumping fluids in the Water, Mining, Oil, and Gas Industries (well depth – 4000ft, operating pressure – 6000psi);
 - Performed the numerical analyses of the Hygr™ Fluid System;
 - Fulfilled the analyses and the optimization of the pipe lines under high pressure conditions.
- Research Engineer, *WeatherSolve Structures* – Vancouver, Canada.** 2012 – 2015
- Provided R&D support for design and installation of the WeatherSolve™ Structures industrial windbreak fences for the steel plant in Saudi Arabia (height up to 100ft, Max operating wind speed – 100MPH):
 - Developed testing procedures and performed tests of the WeatherSolve™ windbreak fence components;
 - Performed load test for the WeatherSolve™ windbreak fence;
 - Analyzed tension distribution in the WeatherSolve™ windbreak fence;
 - Designed the tools for the installation of the WeatherSolve™ Structure windbreak fence components.
- Service Engineer, *TOMRA Sorting Solution* – Vancouver, Canada.** 2011 – 2012
- Commissioning, troubleshooting, inspecting, and engineering support of mining and sorting equipment.
- Engineering Developer, *Canam Aerospace* – Vancouver, Canada.** 2006-2007
- Design of suspended equipment of helicopters using the AutoDesk Inventor;
 - Developing, improving and documenting the manufacturing processes;
 - Developed the test procedures;
 - Performed the quality assurance.

PREVIOUS ENGINEERING EXPERIENCE IN ALUMINUM INDUSTRY

- Designed and installed alumina feeding system to an electrolysis bath using vibrotechnique;
- Studied physical and chemical processes of cryolite thermogranulation in a rotary kiln environment and mechanism for interaction of sodium-aluminum fluorides with compounds of sulfur and carbon;
- Wrote regulations, specifications, schedules, technical reports, budgets, and control schedules;
- Designed and installed a various metallurgical and chemical equipment;
- Developed technology for utilizing fluoroanhydrite wastes.

INTERNATIONAL EXPERIENCE

Worked in Germany, USA, and Russia.

EDUCATION

- **Ph. D, Chemical Process Engineering**

Thesis: *Development of methods for preparation and utilization of solid fluoride-containing waste materials generated by the aluminum industry*

The Russian National Aluminium - Magnesium Institute – VAMI - St. Petersburg, Russia

- **B.Sc. /M. Sc. in Metallurgy**

Specialization: Physical Chemistry and Metallurgy

Moscow Steel and Alloys Institute (*National University of Science and Technology*) - Moscow, Russia

CERTIFICATIONS

- Technologist in Mechanical Engineering (recognized by ASTTBC)
- Radiation Safety Officer (RSO-1)
- Workplace Hazard Materials Information System (WHMIS)
- Standard First Aid (Industry): Certification in Canada and in the United States;
- XEROX Certified Service Engineer.

HOBBIES

Hiking, skiing, photography, video

References available upon request

SELECTED PUBLICATIONS

Use of aluminum production wastes for heat treatment cryolite // Golovnikh, N.V.; Eroujenets, A.A. - *Tsvetn. Met., Moscow (Russia)*, 1995 (5), P. 34 - 36. (Rus/En)

Mechanism of physicochemical transformations in the process of thermal treatment of fluoroanhydrite waste materials // Golovnikh, N.V.; Eroujenets, A.A. - *Tsvetn. Met., Moscow (Russia)*, 1994 (8), P. 35 - 37. (Rus/En)

Mechanism of sodium aluminum fluoride interactions with compounds of sulfur and carbon in waste utilization // Eroujenets, A.A.; Golovnikh, N.V.; Istomin, S.P.; Dorofeev, V.V. - *Tsvetn. Met., Moscow (Russia)*, 1992 (12), P. 34 - 35. (Rus/En)

Thermodynamic analysis of formation of sodium and potassium hydro-carbonates // Golovnikh, N.V.; Eroujenets, A.A.; Mishanina, M.V. - *Izv. Vuzov, Tsvetnaya Metallurgiya, Moscow (Russia)*, 1991(3), P. 32-36 (Rus)

Granulation of aluminum industry slimes for ferrous metallurgy // Eroujenets, A.A.; Istomin, S.P.; Utkov V.A. - *Proceedings of the VAMI, St. Petersburg (Russia)*, 1991, P. 78-80. (Rus)

Cryolite granulation in rotary kilns // Eroujenets, A.A.; Istomin, S.P.; Zhirnakov, V.S.; Mintsis, M.Ya. - *Tsvetn. Met., Moscow (USSR)*, 1990 (6), P. 63 - 65. (Rus/En)

Use of fluoroanhydrite wastes in the production of concrete // Eroujenets, A.A.; Juravlev E.G. - *Proceedings of the VAMI, Leningrad (USSR)*, 1989, P. 69 - 71. (Rus)

Study of characteristics of using fluoroanhydrite wastes in the production of building bricks // Eroujenets, A.A.; Vlasov, I.N.; Alekseeva, L.L.; Zotkin A.G. - *Proceedings of the VAMI, Leningrad (USSR)*, 1987, P. 72-75. (Rus)

PATENTS

Patent **011608824 B2** (USA) Awarded Mar 22, 23. **Hydraulic pumping system** // Richard McNichol; Alexandre Eroujenets.

Patent **009115710 B2** (USA) Awarded Aug 25, 15. **Coaxial pumping apparatus with internal power fluid column** // Richard McNichol; Eroujenets Alexandre; Norm Fisher; Lucas van den Berg; Gordon Bryce

WO 2019/018565 A1 International Publication Date Jan 24, 19. **Hydraulic pumping system.** // Richard McNichol; Eroujenets Alexandre.

Patent Application **3070414 A1** (Canada) National Entry: Jan 17, 20, Pub. Date: Jan 24, 19. **Hydraulic pumping system** // Richard McNichol; Alexandre Eroujenets.

Patent **1781174** (USSR) Awarded Dec 15, 92. **Process for producing palletized material containing sodium-aluminum fluorides** // Istomin, S.P.; Eroujenets, A.A.; Zhirnakov, V.S.; Mintsis, M. Ya.; Makhalov, U. S.

Patent **1650588** (USSR) Awarded May 23, 91. **Process for producing palletized cryolite** // Istomin, S.P.; Zhirnakov, V.S.; Mintsis, M. Ya.; Eroujenets, A.A.; Makhalov, U. S.