

السيرة الذاتية

الاستاذ الدكتور صلاح سالم الذيابات

استاذ هندسة تركيز الخامات المعدنية -جامعة الحسين بن طلال – منذ 20\5\2015

المعلومات الشخصية

تاريخ ومكان الميلاد : الحسينيه /معان في 1973/8/7

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المؤهلات العلمية

بكالوريوس في الهندسه الميكانيكيه (1995)-جامعة موته بتقدير جيد جدا

ماجستير ودكتوراه في هندسة تركيز الخامات المعدنية (2001-2005)-جامعة نوتنجهام -بريطانيا (مبتعث من جامعة الحسين بن طلال)

الجوائز

استاذ زائر/ الجمعيه اليابانيه لنشر العلوم (JSPS) – معهد الميتالورجيا واعادة تدوير المعادن -جامعة توهكو- اليابان- 2012

استاذ زائر/ المؤسسه الالمانيه للبحوث (DFG) – معهد ماكس بلانك للسطوح البنيه والغرويات -المانيا - 2010.

استاذ زائر/ فولبرايت – قسم هندسة التعدين والمعادن – جامعة فرجينيا التكنولوجيه – امريكا - 2009.

استاذ زائر/ انديفار استراليا – مركز جوليوس كرشنت لابحات الخامات المعدنية -جامعة كوينزلاند – استراليا – 2008 .

باحث رئيسي (O1-visa (Alien with outstanding ability)-معهد فلوريدا للفوسفات -جامعة فلوريدا التكنولوجيه- امريكا -2013.

جائزة نقابة المهندسين لمشاريع التخرج في الجامعات الاردنيه - ثلاث مشاريع تخرج باشرافي للاعوام 2008، 2013، 2016 .

استاذ زائرلمختبرات الحكومه الكنديه(قائمة الانتظار لمدة سنه 2010/2011)- (NSERC)- كندا

الخبرات الاداريه والاكاديميه

عميد كلية الهندسه-جامعة الحسين بن طلال، 2017/9/20-لغاية تاريخه

مساعد عميد كلية الهندسه -جامعة الحسين بن طلال 2006 .

نائب عميد البحث العلمي ومديرا للبعثات العلميه - جامعة الحسين بن طلال 2007.
مدير دائرة اللوازم --جامعة الحسين بن طلال 2010

الاهتمامات البحثيه

تعويم (Flotation) الخامات المعدنيه الصناعيه (الفوسفات ،البوتاس ، السيلكا)
استخراج العناصر النادرة (REE) من مخلفات تعدين الفوسفات والبوتاس
اعادة تدوير المخلفات الالكترونيه (E-waste , بطاريات الليثيوم (LiB) والنيكل ميتال هيدرات (NiMH).
معالجة المياه الصناعيه بالتعويم باستخدام الهواء المذاب (DAF)
تعويم الصخر الزيتي واستخراج العناصر النادره منه .
استخدامات الطاقه الشمسيه المركزه (concentrated solar Energy) في استخلاص الخامات المعدنيه.

الانتاج العلمى

الاوراق العلميه المنشوره فى مجلات عالميه محكمه

للباحث 20 بحثا علميا منشورا

1. **Al-Thyabat, Zhang.** 2016. Rare earth element extraction from upgraded phosphate flotation tailings. **Minerals and metallurgical processing** 33(1), PP.23-30.
2. **Al-Thyabat, Zhang.** 2015. In-line extraction of REE from Dihydrate(DH) and HemiDihydrate(HDH) wet processes. **Hydrometallurgy** 153, PP 30-37.
3. **Al-Thyabat, Zhang.** 2015. REE extraction from phosphoric acid, phosphoric acid sludge, and phosphogypsum. **Minerals processing and extractive metallurgy**,124(3), pp. 143-150
4. **Al-Thyabat, Nakamura, Shibata, Iizuka,** 2013. Adaptation of minerals processing operations for Lithium-ion (LiBs) and Nickel metal hydride (NiMH) batteries recycling: critical review, **Minerals Engineering** 45, pp 4-17.
5. **Al-Thyabat, Al-Zoubi,** 2012. Purification of Phosphate Beneficiation Wastewater: Separation of phosphate from Eshydia Mine (Jordan) by Column-DAF Flotation. **International journal of Minerals Processing**, 110-111, pp18-24.
6. **Al-Thyabat, Al-Zoubi, Alnawafleh and Al-Tarawneh,** 2014. Beneficiation of Oil Shale by Froth Flotation: Critical Review. **The Open Mineral Processing Journal**, 2014, 7, 1-12
7. **Al-Zoubi, Al-Thyabat,** 2012, Treatment of a Jordanian Phosphate Mine Wastewater by a hybrid Dissolved Air Flotation and Nanofiltration, **Mine Water and the Environment** ,31(3), 214-224.
8. **Al-Thyabat,** 2012, Evaluation of Mechanical Flotation of non-slimes Jordanian phosphate, **The Arabian Journal for Science and Engineering**, 37(4), pp 877-887.

9. Al-Rawashdeh, Al-Thyabat, 2012. Mining in Jordan: prospects and challenges, **International Journal of Mining and Minerals Engineering**, 4 (2), pp. 116-138.
10. Al-Thyabat, Yoon, Shin, 2011, A comparison between anionic and cationic flotation of siliceous phosphate in column flotation cell, **Journal of Mining Science and Technology**, 21, pp.147-151.
11. Al-Thyabat, Yoon, Shin, 2011, Floatability of Fine phosphate in column flotation cell, **Minerals and Metallurgical processing**, 28(2), pp 110-116.
12. Al-Thyabat, 2010, Column flotation of non-slimes Jordanian phosphate, **The Jordan Journal of Earth and Environmental Sciences**, 3(1), pp 17-24.
13. Al-Thyabat, 2009. The role of sodium silicate in flotation of Jordanian siliceous phosphate, **Separation and Purification Technology**, 67(3), pp. 289-294.
14. Al-Zoubi, Al-Thyabat, Al-Khatib, 2009, A hybrid flotation–membrane process for wastewater treatment: an overview, **Desalination and Water Treatment**, 7, pp.60-70).
15. Al-Thyabat, 2009. Investigating the effect of some operating parameters on flotation kinetics by neural networks. **Advanced Powder Technology**, 20(4), pp.355-360.
16. Al-Thyabat, 2008. Statistical evaluation of conditioning time and slurry concentration in flotation performance of siliceous phosphate. **Minerals and Metallurgical Processing**, 25(3), pp123-129.
17. Al-Thyabat, 2008. Optimization of phosphate flotation by using neural network. **Journal of China University of Mining and Technology (JCMUT)**, 18(3), 418-426.
18. Tarawneh, Al-Thyabat, Al-Harashseh, 2007. Mineralogical, physical and mechanical properties of limestone rocks in Ma'an Area, south Jordan. University of mining and geology, Sofia, Bulgaria. Volume 50, **Geology and Geophysics**.
19. Al-Thyabat, Miles and Koh, 2007. Estimation of the size distribution of particles moving on a conveyor belt. **Minerals Engineering**, 20 (3), 72-83.
20. Al-Thyabat, Miles, 2006. An improved estimation of bulk particulate size distribution. **Powder Technology**, 166(3), pp152-160.

الكتب وفصول الكتب

- للباحث فسلان منشوران في كتابين وكتابا مترجما من اللغة الانجليزية للعربية (في المراحل النهائيه) وكذلك كتابا مؤلفا باللغة الانجليزية (في طور الاعداد)
1. S. Al-Thyabat, K. Tarawneh. (2010). Optimization of Jordanian phosphate flotation. Beneficiation of Phosphates: Technology Advance and adoption Edited by: P. Zhang, K .Swager ,L. Filho , H. El-Shall, published by Society for Mining, Metallurgy, and Exploration, Inc. (SME)

2. **S. Al-Thyabat**, M. Harareh, K.Tarawneh, H.Al-Zoubi, 2011, Preliminary investigations into the use of Jojoba oil as possible collector for phosphate flotation. Beneficiation of phosphate: New ideas, new developments, new technologies. Edited by: P. Zhang, published by Society for Mining, Metallurgy, and Exploration, Inc. (SME) .
3. **Al-Thyabat**, 2014-2017.Solar Energy Engineering: by Stories Kalogeria. (Book-Translation from English to Arabic). (Elsevier Inc.-signed translation contract)-in progress.
4. **Al-Thyabat**. EXCEL^R, ,2014-2017analysis techniques for engineering and science students. (Book in English).in progress.

المؤتمرات العلمية

شارك الباحث باوراق بحثيه في 13 مؤتمرا علميا

- 1-**Al-Thyabat**, Zhang,2017. A comparison between REE extraction from phosphate rock before and after phosphoric acid production.4th International Symposium on Innovation and Technology in the Phosphate Industry from May 8th to 10th, 2017 – Ben Guérir - UM6P Congress Centre.
2. **Al-Thyabat**, Zhang. The use of lanthanum (La⁺³) and cerium (Ce⁺³) ions as phosphate activators in low-grade phosphate flotation. Beneficiation of phosphate VII March 28-April 2, 2015, Melbourne-Australia.
3. **Al-Thyabat**, E. Albdrazag, Abuallan, Using waste frying oil as flotation collector in Jordanian oil shale beneficiation, Conference in Minerals Engineering 7-8 Feb. 2012, Lulea-Sweden.
4. **S. Al-Thyabat**, H. Al-Zoubi, 2010, Application of Dissolved Air Flotation (DAF) in halite removal from Dead Sea brine ,60th Canadian chemical Engineering Conference, (CSCHE2010), Saskatoon, Saskatchewan, Canada, October 24 -27, 2010.
- 5.**Al-Thyabat**, Rawashdeh, 2007.The effect of collector dosage, particle size, and impeller speed on the performance of Jordanian phosphate flotation: Lab scale study. Flotation 07, Cape Town, South Africa, November 6-9 2007.
- 6.**S. Al-Thyabat**, H.Al-Zoubi, 2010. Jordanian Phosphate wastewater treatment: I: phosphate recovery from slime by column-DAF Flotation technology ,60th Canadian chemical Engineering Conference, (CSCHE2010), Saskatoon-Canada, October 24 -27, 2010. **(Oral presentation)**
7. H. Al-Zoubi, S. **Al-Thyabat**, 2010. Jordanian Phosphate wastewater treatment: II: A hybrid process of Dissolved Air Flotation (DAF) - Nanofiltration membrane, 60th Canadian chemical Engineering Conference, (CSCHE2010), Saskatoon, Saskatchewan, Canada from October 24 t-27, 2010. **(Oral presentation).**
8. **Al-Thyabat**, Yoon (2010). A comparison between anionic and cationic flotation of siliceous phosphate in column cell. Processing of industrials minerals 10, Istanbul, Turkey, February 4-5, 2010 **(oral presentation).**

9. **Al-Thyabat, J. Alali (2009).** Oil shale flotation: prospects and challenges, The International Conference on Materials in Jordan, Amman, 4 - 6 March 2009. **(Oral presentation)**
10. **Al-Zoubi, Al-Thyabat, Al-khateeb (2008).** Overview of hybrid Floatation- Membrane process for wastewater treatment: in Jordanian phosphate industry. EUROMED2008, 9-13, NOV, 2008, Jordan-Dead Sea. (Poster).
11. **Al-Thyabat, K. Tarawneh, 2007.** Optimization of Jordanian phosphate flotation. Beneficiation of phosphate V, Rio de Janeiro, Brazil, February 17-21 /2008 **(Poster)**.
12. **Al-Thyabat, Tarawneh, Harareh, Rawashdeh, (2007)** Beneficiation of Jordanian Phosphate: A review of current practices. 5th international Jordanian mining conference, Amman, Jordan, September 6-9, 2007 **(oral presentation)**.
13. **Al-Thyabat, Rawashdeh, 2007.** The effect of collector dosage, particle size, and impeller speed on the performance of Jordanian phosphate flotation: Lab scale study. Flotation 07, Cape Town, South Africa, November 6-9 2007. **(Poster)**.

المشاريع البحثية المدعومه

شارك الباحث كباحث رئيسي او باحث مشارك في 13 مشروعا بحثيا بلغت قيمتها الاجماليه حوالي 350000 دولار امريكي, بالاضافه للاشراف على مشاريع تخرج الطلبة ورسائل ماجستير حيث دُعمت هذه المشاريع ماليا او بتوفير المستلزمات البحثيه من قبل كل من : جامعة الحسين بن طلال , صندوق دعم البحث العلمي /وزارة التعليم العالي, مؤسسة عبدالحميد شومان , شركة الفوسفات/ مركز الابحاث , شركة اليوتاس , صندوق الملك عبدالله للتنميه , وزاة الطاقه الامريكيه (USDOE) بالتعاون مع معهد فلوريدا للفوسفات .:

1. **Zhang, P., Al-Thyabat (PI), 2013.** Rare earth Elements (REE) extraction from Florida Phosphate, Florida Industrial and Phosphate Research (FIPR-12-02-186), Funded by US Department of Energy (USDOE) –USA **(Completed)**.
2. **Al-Thyabat (PI), E. Al -Zoubi, 2011,** Development of collectors for phosphate, potash, and oil shale from cheap local materials. Funded by Abdul Hammed Shoman Foundation and Arab Potash Company (APC) –Jordan. **(Completed)**.
3. **Yoon, Al-Thyabat (PI), 2011.** Development of a novel collector for flotation of North Carolina Phosphate, Funded by Center for advanced separation Technologies (CAST), Virginia Tech. University –USA **(completed)**.
4. **Al-Zoubi, Al-Thyabat (CI), 2010.** Treatment of Eshydia phosphate wastewater by Dissolved air flotation and Membrane, Funded by Ministry of Higher Education Research Fund **(completed)**.
5. **Al-Thyabat (PI), Harareh, Tarawneh .2007.** Beneficiation of Jordanian phosphate. Funded by Al-Hussein University and Abdul Hammed Shoman Foundation-Jordan **(completed)**.
6. **Miller, Al-Thyabat (PI), 2010,** The role of dynamic surface tension in minerals flotation. Funded by Max-Planck Institute for colloid and interfaces –/Germany. **(completed)**
7. **M. Harareh, Al-Hrahasheh, Fraije, Al-Thyabat (CI), 2010.** Investigating the flow in hydrocyclone. Funded by Ministry of Higher Education Research Fund –Jordan **(completed)**.
8. **Tarawneh, Al-Harashsheh, Al-Thyabat (CI), 2008.** Minerals resources in Ma'an governorate: A mineralogical study. Funded by Al-Hussein University-Jordan **(completed)**.

9. Al-Thyabat (PI), Harareh, Tarawneh .2007. Beneficiation of Jordanian phosphate. Funded by Al-Hussein University and Abdul Hammed Shoman Foundation-Jordan **(completed)**.

10-Al-Thyaba t (supervisor). characterization of phosphogypsum produced from Eshydia fertilizer plant for its reuse, Department of Mining Engineering, AHU University –Jordan, Funded by King Abdullah II for Research and Development –Jordan. **Awarded (JES) prize for graduation projects (2016)**. **(completed)**

11- Al-Thyabat (supervisor). REE extraction from Jordanian oil shale ash, Department of Mining Engineering, AHU University –Jordan, Funded by King Abdullah II for Research and Development –Jordan. **Awarded (JES) prize for graduation projects (2016)**. **(completed)**

12- Al-Thyabat (supervisor). Recycling of printed circuit boards., Department of Mining Engineering, AHU University –Jordan) **(2015)-(completed)**.

13- Al-Thyabat (supervisor). **REE** extraction from Jordanian Phosphate waste: slime and tailings, Department of Mining Engineering, AHU University –Jordan, Funded by King Abdullah II for Research and Development –Jordan. **Awarded Jordanian Engineers Syndicate(JES) prize for graduation projects (2014)-completed**

14. Al-Thyabat (supervisor). Hybrid membrane –DAF (dissolved air Flotation) treatment for Eshydia phosphate mine (Jordan) wastewater. Department of Mining Engineering, AHU University –Jordan, Funded by King Abdullah II for Research and Development –Jordan. – **(completed)**.

15. Al-Thyabat (supervisor). Flotation of Jordanian siliceous phosphate. Department of Mining Engineering, AHU University –Jordan, **Awarded (JES) prize for graduation projects (2008)**. **(completed)**

16 Al-Thyabat (supervisor).Design of parabolic trough collector system for domestic heating and air conditioning. Department of Mechanical Engineering, AHU University –Jordan, Funded by King Abdullah II for Research and Development –Jordan. – **(2017) (In progress)**.

17 Al-Thyabat (co-supervisor).Prediction of PV cell performance by artificial neural network(ANN).Master Thesis -Mut'ah University -Jordan. – **(2017) (Completed)**.

العضوية في الجمعيات العلمية

Jordanian Fulbright Alumni Association (JFAA)-Jordan

American society for Mining, Metallurgy &Exploration (SME)-USA

The British Universities Alumni Association (BUAA)-Jordan

Max Planck Alumni Association (MPAA) -Germany

اللغات والمهارات

اتقان اللغة الانجليزية وقليل من الفرنسية

مهارات الحاسوب والبرمجة بلغة السي بلس والفيجيوال باسك

اتقان استخدام بعض البرامج الهندسية المتخصصة مثل ماتلاب والوتوكاد