Curiculum vitae

Somboon Anuntalabhochai pHD.

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Major Awards

2004, National Research Council Prize for the Most Distinguished Research Work on Ion Beam Induced DNA Transfer.

2006, Thailand Research Fund Prize for the Most Excellent Research Project on Low Energy Ion Beam in Biotechnology

Education

Ph.D. (Plant Molecular Biology)	Gent University Belgium 1993
M.sc. (Tropical Molecular Biology)	Vrije University Belgium 1978
M.Sc. (Marine Science)	Chulalongkorn University 1970
B.Sc. (Zoology)	Chulalongkorn University 1964

Position Experiences

Staff in Biology Department Faculty of science Chiang Mai university 1976-2021

Associate Dear for Research Faculty of science Chiang Mai university 1995-1998

Senior advisory board of Northern National Science and Technology Development Agency 1988-2018

Associated Editor for Biology of Journal Of Science Faculty of Science Chiang Mai university 2006- 2010

Advisory board Biology Department Faculty of science Phayao University 2014- present

Major Research Grants

1 Plant Genetic Conservation Project Under the Royal Initiation of Her Royal Highness Princess Maha Chakri Sirindhorn (RSPG) 6 MB ระเวลา 3 ปี (พ.ศ. 2537-2540)
2 The Thailand Research Fund (TRF) research funds 1.5 MB (1997-1999)
3 Royal Jubilee Project students : 4 students (1996-2012)
4 PhD grant potential from The Higher Education Commission : 2 students (2006-2012)
5 TRF Senior Research Scholar Program : Low Energy Ion Beam in Biotechnology 6 MB (2004-2007) (research co-investigator)
6 TRF-CHE Outstanding Mid-Career Researcher Award:1.2 MB (2005-2008)
7 National Research Center : 14 MB (2006-2007) (research co-investigator)
8 National Research Center : 4.6 MB (2007-2008)
9 TRF Basic Research Grant 1.2 MB (2007 –2009) (research co-investigator)
10 International Atomic Energy Agency (IAEA) 400,000 $ (2009-2012)
11 National Research Center : 3.1MB (2013-2014)
12 Thailand Center of Excellence in Physics (ThEP Center) : 3 MB (2017-2019)

Specialization:

Microbe and plant molecular biology, ion beam bioengineering cold plasma immersion technology

Publications

1. **Anuntalabhochai, S.**, Terryn, T., Van Montagu, M., and Inze', D .(1991). Molecular characterization of an *Arabidopsis thaliana* cDNA encoding a small GTP-binding protein, Rha1. ***Plant, J.*** 1:167-174. (IF 6.16)

2. Terryn, N., **Anuntalabhochai, S**., Van Montagu, M., and Inze', D. (1992). Analysis of a *Nicotiana plumbaginifolia* cDNA a novel small GTP-binding protein. ***FEBS Lett.*** 299:287-290. (IF 3.7)

3. Van Der Straeten, D., **Anuntalabhochai, S**., Van Caeneghem, W., Zhou, Z., Gielen , J and Van Montagu, M. (1997). Expression of three members of the ACC synthase gene family in deep water rice by submergence, wounding and hormonal treatments. ***Plant Science*** 124: 79-87. (IF 2.9)

4. Chandej, R and **Anuntalabhochai, S** (1999). Bacterai Degradation of Used Lubricating –Oil: Isolation and Optimization for Biodegradability ability. ***J. Sci. Fac. CMU.*** 26(1): 17-24 (IF 0.5)

5. Apavatjrut, P., **Anuntalabhochai, S**., Sirirugsa,P., and Alisi, C.(1999) Molecular Markers in the Identification of some early flowering *Curcuma* L. (Zingiberraceae) species. ***Annals of Botany***. 84:529-534. (IF 4.05)

6. Vilaithong, T. Yu, L.D., C, Alisi, Punchaisri, B., Apavatjarut, P**.,** and **Anuntalabhochai, S**. (2000). A study of low-energy ion beam effects on outer plant cell structure for exogenous macromolecule transferring. ***Surface and Coating Technology*** .128-129:133-138. (IF 2.19)

7. **Anuntalabhochai, S.,** Chandej, R., Chiangda, J., and Apavatjrut, P. (2000). Genetic Diversity within Lychee (*Litchi chinensis* Sonn.) based on RAPD analysis. ***Acta Horticulturae.*** 575: 253-259.

8. **Anuntalabhochai,** S., Chandej, R., Phanchisiri, B., Yu., L.D., Vilaithong, T., and Brown, I.G. (2001) Ion-Beam-Induced deoxyribose nucleic acid transfer. ***Applied Physics Letters***. 78(16):1-3. (IF 3.88)

9. Yu, L.D., Phanchaisri, B., Apavatjrut, P., **Anuntalabhochai, S**., Vilaithong, T. and Brown, I.G. (2002) Some investigation of ion bombardment effects on plant cell wall surfaces. ***Surface and Coating Technology***. 158-159:146-150. (IF 2.19)

10. Phanchaisri, B., Yu, L.D., Chandej, R., **Anuntalabhochai, S.,** Apavatjrut, P., Vilaithong, T. and Brown, I.G. (2002) Characteristics of heavy ion beam-bombarded bacteria *E. coli*. and induced direct DNA transfer***. Surface and Coating Technology***. 158-159:624-629. (IF 2.19)

11. L. D. Yu, L T. Vilaithong, B. Phanchaisri, P. Apavatjrut, **S. Anuntalabhochai**, P. Evans and I. G. Brown (2003). Ion penetration depth in the plant cell wall . ***Nuclear Instrument and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*** . 206: 586-590 (IF 1.07)

12. Apavatjrut, P., Alisi, C., Phanchaisri, B., Yu, L., **Anuntalabhochai, S**., Vilaithong, T. (2003) Induction of Exogenous Molecule Transfer Into Plant Cells by Ion Beam Bombardment. ***Science Asia*** 29: 99-107. (IF 0.39)

13. Sripalwit,P., Wongsawad, C., Chai, J.Y.., **Anuntalabhochal, S**., and Rojanapaibul, A. (2003) Investigation of Stellantchasmus falcatus metacercariae in half-breaked fish, *Dermogenus pusillus* from four district of Chiang Mai Province, Thailand***. Southeast Asian J Trop Med Public Health*** 34:281-285. (IF 0.67)

14. Vilaithong, T.,Yu, L.D., Apavatjrut, P., Phanchaisri, B., Sangyuenyongpipat., **Anuntalabhochai, S**., and Brown, I.G. (2004). Heavy ion Induced DNA transfer in biological cells. ***Radiation Physics and Chemistry***. 71:927-935. (IF 1.22)

15. Wangspa, R., Cutler, W.C., Sitthipom, s., Chundet, R., Dumampai, N., **Anuntalabhochai, S.** (2005). High Annealing Temperature Random Amplified Polymorphic DNA(HAT-RAPD) Fingerprint Database of Tropical Plants. ***Science Asia*** 31(2) :145-149. (IF 0.39)

16. Sitthiprom, S., Anuntalabhochai, S., Dum-ampai,N., Thakumphu,B., Dasanonda,M. (2005) Investigation of Genetic Relationships and Hybrid Detection in Longan by High Annealing Temperature RAPD. ***Acta Hort***. 665:161-169

17. S. Mahadtanapuk, S., Topoonyanont, N., Handa, T., Sanguansermsri, M., and **Anuntalabhochai, S.** (2006) " *Agrobacterium tumefaciens* mediated transformation in *Curcuma alismatifolia* Gagnep. using retarded shoots". ***Plant Biotechnology*** 23 (2) :233-237 (IF 0.9)

18. Cutler, R.W., Chundet R. , Handa T., and **Anuntalabhochai S**. (2006). Development of sequence characterized DNA markers linked to a temperature dependence for flower induction in lychee (*Litchee chinensis* Sonn.) cultivars. ***Scientia Horticulturae***. 107:264-270.

19. Udomluk Sompong, Richard W. Castenholz , **Somboon Anuntalabhochai** and Yuwadee Peerapornpisal (2006) Genetical Diversity of Mastigocladus in Ranong Hot Spring, Southern Part of Thailand. ***Chiang Mai J. Sci***. 2006; 33(3) : 363 – 370 (IF 0.5)

20. Wongsawad, C., Wongsawad, P., Chai, J.Y., Paratasilpin and **Anuntalabhochai, S**. (2006) DNA Quantities and Qualities From Various Stages of Some Trematodes Using Optical and HAT-RAPD Methods. ***Southeast Asian J Trop Public Health***. 37(suppl): 62-69 (0.67)

21. Sripalwit, P., Wongsawad, C., Wongsawad, P., **Anuntalabhochai, S**. (2007) High annealing temperature-random amplification polymorphic DNA (HAT-RAPD) analysis of three paramphistome flukes from Thailand. ***Experimental Parasitology***. 115:98-102.(IF 2.12)

22. Cutler, R.W., Sitthiphrom, S., Marha, J., and **Anuntalabhochai S**. (2007) Development of sequence characterized DNA markers linked to a temperature dependence for fruit production in longan (*Dimocarpus longan* Lour.) cultivars" J***ournal of Agronomy and cropt Science*** 193:74—78

23. **Anuntalabhochai, S.**, Sitthiphrom, S.,Thongtaksin, W., Sanguansermsri, M., and Cutler, R.W. (2007) Hybrid detection and characterization of *Curcuma spp*. using sequence characterized DNA markers. ***Scientia Horticulturae*** 111: 389–393

24. Mahadtanapuk, S., Sanguansermsri, M., Cutler, R.W., Sardsud, V**., Anuntalabhochai, S**. (2007) Control of Anthracnose Caused by *Colletotrichum musae* on *Curcuma alismatifolia* Gagnep. using Antagonistic *Bacillus spp*. ***American Journal of Agricultural and Biological Sciences*** 2 (2): 54-61, 2007

25. Mahadtanapuk, S Yu, L.D., Vilaithong, T., and **Anuntalabhochai**, S. (2007). Mutation of *Bacillus licheniformis* by Low Energy Ion Beam. ***Surface Coating and Technology***. 201: 8029–8033. (IF 2.19)

26. Phanchaisri, B., Chandet, C, Yu, L.D., Vilaithong, T., Jamjod, S, and **Anuntalabhochai**, S (2007). Low-energy ion-beam-induced mutation in Thai jasmine rice (*Oryza sativa* L. cv. KDML 105). ***Surface & Coatings Technology*** 201 : 8024–8028. (IF 2.19)

27. L.D. Yu, S. Sangyuenyongpipat , **S. Anuntalabhochai** ,B. Phanchaisri , T. Vilaithong , I.G. Brown (2007) Effects of low-energy ion beam bombardment on biological cell envelopes. ***Surface & Coatings Technology*** **.** 201 : 8055–8061. (IF 2.19)

28. Chundet R, Cutler R.W., Tasanon M. and **Anuntalabhochai S.** (2007). Hybrid Detection in Lychee *(Litchee chinensis* Sonn.) Cultivars Using HAT-RAPD Markers. ***ScienceAsia***. 33:307-311.

29. L.D. Yu , S. Sangyuenyongpipat , S. Anuntalabhochai ,B. Phanchaisri , T. Vilaithong , I.G. Brown (2007).Effects of low-energy ion beam bombardment on biological cell envelopes. ***Surface & Coatings Technology*** . 201: 8055–8061(IF 2.19)

30. Udomluk Sompong, **Somboon Anuntalabhochai**, Robert W. Cutler, Richard W. Castenholz, and Yuwadee Peerapornpisal (2008). Morphological and Phylogenic Diversity of Cyanobacterial Populations in Six Hot Springs of Thailand. ***Science Asia***. 34 (2008): 153–162 **(IF 0.39)**

31. **S. Anuntalabhochai,** R. Chundet, W. Phromthep, S. Sitthiphrom and R.W. Cutler* (2008) Phylogenetic diversity of Ficus species using HAT-RAPD markers as a measure of genomic polymorphism. ***The Open Agriculture Journal,*** 2: 62-67

32. Yu, L.D, Prakrajang, K., Vilaithong, T., Tengsirivattana, C., and **Anuntalabhochai, S.** (2008). Ion Beam Intensity Distribution in Ion-Bombardment Areas of Biological Targets. ***Journal of the Korean Physical Society***, 53 (6) : 3736-3740 (IP 0.38)

33. Anuntalabhochai, S., Chundet, R., Buapong, N. and Cutler, R.W. (2009). Detection of DNA Hypomethylation Mediated Floral Induction in Longan and Spinach Using The HAT-RAPD Technique. ***American Journal of Applied Sciences*** 6 (2): 361-367.

34. **S. Anuntalabhochai**, R. Chandej , M. Sanguansermsri , S. Ladpala , R.W. Cutler and T. Vilaithong (2009). Ion-beam-induced gene transfer in *Saccharomyces cerevisiae*. ***Surface & Coatings Technology***, 203 (17-18):2521-2524. (IF 2.19)

35. S. Mahadtanapuk, M. Sanguansermsri, L. D. Yu, T. Vilaithong and **S. Anuntalabhochai** (2009). Cloning of antifungal gene from *Bacillus licheniformis* by application low energy ion beam bombardment. ***Surface & Coatings Technology*** 203 (17-18): 2546-2549. (IF 2.19)

36. A. Krasaechai, L.D. Yu, T. Sirisawad, T. Phornsawatchai, W. Bundithya, U. Taya, **S. Anuntalabhochai,** T. Vilaithong (2009). Low-energy ion beam modification of horticultural plants for induction of mutation ***Surface & Coatings Technology*** 203 (17-18): 2525-2530. (IF 2.19)

37. K. Prakrajang, P. Wanichapichart, **S. Anuntalabhochai**, S. Pitakrattananukool, L.D. Yu (2009) Ion Beam Modification of Chitosan and Cellulose Membranes for Simulation of Ion Bombardment of Plant Cell Envelope. ***Nucl. Instr. and Meth. in Phys***. (Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms,) 267 (8-9):1645-1649. (IF 1.07)

38. R. Norarat, N. Semsang, **S. Anuntalabhochai**, and L.D. Yu (2009) Very Low-Energy and Low-Fluence Ion Beam Bombardment of Naked Plasmid DNA ***Nucl. Instr. and Meth. in Phys*.** (***Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms***) 267(8-9):1650-1653**.** (IF 1.07)

39. Wongsawad, C., Wongsawad, P., Chai, J Y, **Anuntalabhochai, S.** (2009). *Haplorchis taichui*, Witenberg, 1930: Development of a HAT-RAPD marker for the detection of minute intestinal fluke infection. ***Experimental Parasitology*** 123 (2009) 158–161 **(IF 1.75)**

40. Wongsawad, C., Wongsawad, Chuboon, S and **Anuntalabhochai, S.** (2009). Copro-Diagnosis of *Haplorchis taichui* Infection using sedimentation and PCR-based method. ***J. Trop. Med Public Health*** 40(5) 1-5.

41. Ngaojampa, C., Nimmanpipug*a*, P.,Yu, L., **Anantalabhochai*c***, **S** and Lee, V.S (2010) Molecular Simulations of Interactions between Nitrogen Ions (N+) and A-DNA in Vacuum**. *Journal of Molecular Graphics and Modelling*** 28 (2010) 533–539 **. (**IF 2.347**)**

42. S. Sarapirom , K. Sangwijit , **S. Anuntalabhochai** , L.D. Yu (2010) Plasma immersion low-energy-ion bombardment of naked DNA ***Surface & Coatings Technology*** 204 (2010) 2960–2965**. (IP 2.19)**

43. L.D. Yu., V.S. Lee., P. Nimmanpipug., K, Prakrajang., S. Sarapirom and **S. Anuntalabhochai** (2010**)** The 3rd IEEE International Nanoelectronics Conference, Jan. 3-8, 2010 Hong Kong. To be accepted paper are to be published in a special issue of J. ***Nanoscience and Nanotechnology*** (IF 1.887)

44. C. Ngaojampa, P. Nimmanpipug, L.D. Yu, **S. Anuntalabhochai**d, V.S. Lee.(2011). Combined quantum-mechanics/molecular-mechanics dynamics simulation of A-DNA double strands irradiated by ultra-low-energy carbon ions. ***Nuclear Instruments and Methods in Physics Research B (NIM B.***) 269: 504–510. (IF 1.07)

45. **S. Anuntalabhochai**, L.D. Yu, T. Vilaithong. (2011) : Ion Beam Bioengineering Research in Thailand, in *Bioengineering Principles, Methodologies and Applications*, Nova Publisher, New York, 2011.(Book)

46. L.D. Yu, V.S. Lee, P. Nimmanpipug, K. Prakrajang, S. Sarapirom and **S. Anuntalabhochai**. Ion Beam Nanobiology, *Proceedings of the 2010 3rd International Nanoelectronics Conference (INEC 2010)*, P. Chu, ed., Institute of Electrical and Electronics Engineers (IEEE), 815-816 (IEEE Xplore digital library).

47. S. Sarapirom, P. Thongkumkoon, K. Prakrajang, **S. Annutalabhochai** and L.D. Yu. (2011) A comparative study on low-energy ion beam and neutralized beam modifications of naked DNA and biological effect on mutation, ***Nuclear Instruments and Methods in Physics Research B*** (272):377–381. (IF 1.07)

48. S. Sarapiroma, P. Thongkumkoon , S. Anuntalabhochai , L.D. Yu. (2011) Vacuum effect on DNA lesion and genetic mutation of cells. ***Vacuum*** (86) 374-379. (IF 1.2)

49. K. Prakrajang, K. Sangwijit, **S. Anuntalabhochai**, P. Wanichapichat, L.D. Yu. (2012) Neutralized ion beam modification of cellulose membranes for study of ion charge effect on ion-beam-induced DNA transfer, transfer ***Nuclear Instruments and Methods in Physics Research B*** (272): 382–385. (IF 1.07)

50. L.D. Yu, S. Anuntalabhochai (2012) Ion beam modification of biological materials in nanoscale. ***Nuclear Instruments and Methods in Physics Research B*** (282):) 137–140. (IF 1.07)

51. Boonrak Phanchaisri, Nuananong Samsang, LiangDeng Yu, Somsorn Singkarat, Somboon Anuntalabhochai (2012). Expression of OsSPY and 14-3-3 genes involved in plant height variations of ion-beam-induced KDML 105 rice mutants. ***Mutation Research*** 734 :56-61. (IF 3.16)

52. N. Semsang, R. Kawaree, R.W. Cutler, R. Chundet, L.D.Yu and S. Anuntalabhochai (2012). Improved antioxidant activity of BKOS Thai jasmine rice. ***Natural Product Research***, 26,(12): 1145–1151 (IF 1.05)

53. Sugunya Pitakrattananukool ,Taiji Kawakatsu, **Somboon Anuntalabhochai** and Fumio Takaiwa (2012) Overexpression of *OsRab7B3*, a small GTP-binding protein gene, enhances leaf senescence in *Oryza sativa* ***Biosci. Biotechnol. Biochem***., 76 (7) :1296-1302 (IF 1.276)

54. Kanta Sangwijit, Pattanapong Thangsunan, Robert Cutler, and **Somboon Anuntalabhochai** (2012) Development of SCAR Marker for Thai Fragrant Rice (*Oryza sativa* L. var.*indica* cv. Pathumthani 1) Mutants Induced by Low Energy Ion Beam. ***Chiang Mai J. Sci***.; 39(4) : 545-553 (IF 0.5)

55. . Pitakrattananukool S., Sitthiporm S., Cutler R. W. and **Anuntalabhochai S**. (2013) Molecular cloning of senescence-related cDNA, OsRab7, from Thai jasmine rice (Oryza sativa L. cv. KDML105). International Research Journal of Plant Science. 4(5): 109-116.

56. Chalobol Wongsawad, Pherawut Wongsawad, **Somboon Anuntalabhochai** and Jomng-Yil Chai (2013) Occurrence and molecular identification of liver and minute intestinal flukes metacercariae in freshwater fish from Fang-Mae Ai Agriculture Basil, Chaing Mai provinve, Thailand. ***Asian Biomedicine*** 7 (1): 97-104. (IF 0.25)

57. Ratchuporn Suksathana, Siriwoot Sookkheeb, Somboon Anuntalabhochaic and Sunee Chansakaowa (2013) Chemical Composition and Antibacterial Activity of Rhizome Oils from Five Hedychium Species. ***Natural Product Communications*** 8(4): 520-522. (IF 1.24)

58. L.D. Yu, W. Wongkham, K. Prakrajang, K. Sangwijit, K. Inthanon, P. Thongkumkoon, P. Wanichapichart, **S. Anuntalabhochai** (2013) . Nano-ranged low-energy ion-beam-induced DNA transfer in biological cells. ***Applied Surface Science*** 275 :136– 141. (IF 2.1)

59. Narumol BOONRUENG, **Somboon ANUNTALABHOCHAI**, Arunothai JAMPEETONG (2013) Morphological and Anatomical Assessment of KDML 105 (*Oryza sativa* L. spp. *indica*) and Its Mutants Induced by Low-Energy Ion Beam. ***Rice Science***, 2013, 20(3): 213-219.(IF 2.37)

60. Sugunya Pitakrattananukool, Supranee Sitthiphrom, Robert W. Cutler, **Somboon Anuntalabhochai1** (2012) Molecular Cloning of Senescence-Related cDNA, *OsRab7*, from Thai Jasmine Rice (*Oryza sativa* L. cv. KDML 105). ***International Research Journal of Plant Science***. 4(5) : 109-116.

61. S. Mahadtanapuk , W. Teraarusiri , B. Phanchaisri , L.D. Yu, **S. Anuntalabhochai** (2013). Breeding for blast-disease-resistant and high-yield Thai jasmine rice (Oryza sativa L. cv. KDML 105) mutants using low-energy ion beams. ***Nuclear Instruments and Methods in Physics Research B*** (307):) 229–234.(IF 1.2)

62. Ruangwit Porruan and **Somboon Anuntalabhochai** (2513) Characterization of Siam Tulip (*Curcuma alismatifolia*) Cystatin (*CaCPI*). ***CMU. J. Nat. Sci***. 12(2): 99-108 (Thai IF 0.02)

63. C. Jaichuen , R. Chundet , L.D. Yu , P. Thongkumkoon **, S. Anuntalabhochai** (2013) Investigation of effect from low-energy plasma immersion ion bombardment of extracellular DNA and gene fragment on mutation induction. ***Surface & Coatings Technology***. 229:180-185 (IF 1.91)

64. Chalobol Wongsawada, b, Pheravut Wongsawada, **Somboon Anuntalabhochaia**, Jong-Yil Chaic, Kom Sukontasond (2013). Occurrence and molecular identification of liver and minute intestinal flukes metacercariae in freshwater fish from Fang-Mae Ai Agricultural Basin, Chiang Mai province, Thailand., ***Asian Biomedicine*** 7 (1) ; 97-104 . (IF:0.2)

65. Ruangwit Porruan, Ruttaporn Chundet, **Somboon Anuntalabhochai** (2014) Characterization of a cDNA encoding cystatin with antifungal activity from Siam tulip *Curcuma alismatifolia*. ***ScienceAsia.*** 39 (2013): 596–604 (IF 0.3)

66. S. Mahadtanapuk , W. Teraarusiri , W. Nanakorn , L.D. Yu, P. Thongkumkoon , **S. Anuntalabhochai** (2014). A novel ion-beam-mutation effect application in identification of gene involved in bacterial antagonism to fungal infection of ornamental crops. ***Nuclear Instruments and Methods in Physics Research B*** 326 : 209-213 (IF:1.07)

67. Ratchuporn Suksathan, **Somboon Anuntalabhochai**, Arunothai Jampeetong, Siriwoot Sookkhee and Sunee Chansakaow (2014). A Phylogenetic Analysis of Thai *Hedychium* (Zingiberaceae) and Development of SCAR Marker for *Hedychium flavescens* Carey ex Roscoe. ***Chiang Mai J. Sci.*** (2) : 286-297 (IF 0.5)

68. L.D. Yu, K. Sangwijit, K. Prakrajang, B. Phanchaisri, P. Thongkumkoon, P. Thopan, S. Singkarat, **S. Anuntalabhochai**. (2014) Mechanisms of ion-bombardment-induced DNA transfer into bacterial E. coli cells. ***Nuclear Instruments and Methods in Physics Research B.*** 326: 204–20. (IF:1.07)

69. Pralongyut Sripalwit, Chalobol Wongsawad, Thapana Chontananarth, **Somboon Anuntalabhochai**, Pheravut Wongsawad, Jong-Yil Chai. (2015.) Developmental and Phylogenetic Characteristics of *Stellantchasmus falcatus* (Trematoda: Heterophyidae) from Thailand. *Korean J Parasitol (2) : 201-207,* (IF 0.965)

70. K. Sangwijit, L.D. Yu. S. Sarapirom, S. Pitakrattanukool, **S. Anuntalabhochai**. (2015). Low-energy plasma immersion ion implantation to induce DNA transfer into bacterial E. coli. ***Nuclear Instruments and Methods in Physics Research B.*** vol. 365: 389 -393 (IF 1.323)

71. K. Sangwijit, J. Jitonnom, S. Pitakrattananukool , L.D. Yu**, S. Anuntalabhochai** 2516 . Low-energy plasma immersion ion implantation modification of bacteria to enhance hydrolysis of biomass materials. ***Surface & Coatings Technology***. 306: 336-340 (IF 1.91)

72. S Suebsan, SSitthiphrom, K Sangwijit, M. Sanguansermsri and S. Anuntalabhochai. 2017. Expression Analysis of Rice Polygalacturonase cDNA Responding to Brown Planthopper [*Nilaparvatalugens* (Stål)]. ***Genomics and Genetics***. 10(1&2), 13-20. (TCI 1)

73. R. Kalawong, M.Wakayama, S. Anuntalabhochai, C.Wongsawad, K. Sangwijit. (2018). Comparison and Characterization of PurifiedCellulase and Xylanase from *Bacillus amyloliquefaciens* CX1 and *Bacillus subtilis* B4. ***Chiang Mai Journal of Science,***Vol. 45(1): 92-105 (IF:0.409)

74. Hathairat Laksuk, **Somboon Anuntalabhochai**, Kanta Sangwijit, Narumol Boonrueng, Sugunya Suebsan, and Chananbhorn Thongrote.(2019) " Induced mutations of naked DNA by atmospheric pressure plasma jet (APPJ)" ***Srinakharinwirot science journal*** : 35(2) 2562 (TCI 1)

75. Nitipol Polsa, Wasana Suyotha, Sugunya Suebsan, **Somboon Anuntalabhochai**, Kanta Sangwijit (2020). Increasing xylanase activity of Bacillus subtilis by atmospheric pressure plasma jet for biomass hydrolysis ***3 Biotech (BITC)*** 10::22 (IF 2.27)

Conferences/ Meetings

1 Kumpoun, W., Chuthakorn, R., Supyen, D., Sardsud, V., **Anuntalabhochai, S**., Yantrasri, T., Promin, S., and Sornsrivichai, J. (1994). Quantitative relation between derivative in the peel of mango (*Mangifera indica)* to

maturity and cultivars. 20th Conf. Sci. & Tech. of Thailand, Thamasart University, Bangkok Conventional Center, Central Plaza Hotel, BKK, Thailand.

2 **Anuntalabhochai, S**., Geilen, J., Van Montagu, M., and Van Der Straeten, D. (1995). Molecular characterization of genes encoding ACC synthase in deepwater rice. 4th Pacific Rim Biotechnology Conference. Feb.4-9, 1995, Melbourne, Australia.

3 **Anuntalabhochai, S**., Geilen, J., Zhou, Z., Van Montagu, M., and Van Der Straeten, D. (1995). Identification and characterization of genes involved in ethylene biosynthesis in deepwater rice. 9th Genetic Conference with a title " Genetic for quality of life and environment" March 22-24 , 1996. Pang Suan Kaew Hotel. Chiang mai.

4 Apavatjrut, P., Sirirugsa, P., Sirisawad, T., **Anuntalabhochai, S.,** and Alisi, C (1996). The use of isozyme to support identification in *Curcuma aurantiaca* Van Zijp. The Third Pacific Conference on Agricultural Biotechnology. Oct. 10-15, 1996, Prachuab Kirikhan, Thailand.

5 Chandej, R and **Anuntalabhochai, S** (1998).Bacterial comsumption of used lubricating-oil. The 10th Annual Meeting of the Thai Society for Biotechnology and The 1998 Annual Meeting of the National, Center for Genetic Engineering and Biotechnology on Biotechnology for a self-sufficient Economy . November 25-27, 1998. Sol Twin Hotel, Bangkok Thailand.

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Rewards :

Thesis outstanding award from Graduate School Chiang Mai university (Advisor) 1998

Outstanding poster award from 14th International Conference on Surface Modification of Materials by ion beam, 4-9 SEPT 2005 , Kusadasi, Turkey

National Research Council Prize for the Most Distinguished Research Work on Ion Beam Induced DNA Transfer. 2004,

Thailand Research Fund Prize for the Most Excellent Research Project on Low Energy Ion Beam in Biotechnology 2006