

The 2017 Ta Quang Buu Awards to be awarded to two scientists in the fields of mathematics and chemistry



Deputy Prime Minister, Vu Duc Dam, made a speech at the 2017 Ta Quang Buu Awards Ceremony.

The Ta Quang Buu Award is an annual award held by the Ministry of Science and Technology and the National Foundation for Science and Technology Development to encourage and honour scientists with outstanding achievements in the fields of natural sciences and engineering contributing to promoting the integration and development of Vietnam's scientific and technological fields. Launched in 2013, the Ta Quang Buu Award is increasingly affirming the prestige in the Vietnamese scientific community, helping it to gain more attention and further support from scientists in Vietnam. The fields of the award include: Mathematics, Computer Science and Information,

Physics, Chemistry, Geosciences and Environment, Life Sciences - Biomedical Sciences, Life Sciences - Biological and Agricultural Sciences, and Mechanics.

This year, the Ta Quang Buu Awards recognised two scientists:

1) Assoc. Prof., Dr. Nguyen Sum, from Quy Nhon University, in the field of mathematics, for his work: *On the Peterson hit problem*, published in *Advances in Mathematics* in 2015 (Vol.274, pp.432-489). He studied the hit problem, set up by F. Peterson, of finding a minimal set of generators for the polynomial algebra $P_k = F_2[x_1, x_2, \dots, x_k]$ as a module



Assoc. Prof., Dr. Nguyen Sum and Prof., Dr. Phan Thanh Son Nam received the 2017 Ta Quang Buu Awards.

over the mod-2 Steenrod algebra, A . In his study, a minimal set of generators for A -module P_k in some so-call generic degrees was investigated, and the results had been applied to explicitly determine the hit problem for $k=4$. The research also contributes to improving the quality of postgraduate education and strengthening research in the field of basic science;

2) Prof., Dr. Phan Thanh Son Nam, from the University of Technology, Vietnam National University in Ho Chi Minh City, in the field of chemistry, for his work on: *Propargylamine synthesis via sequential methylation and C-H functionalization of N-methylanilines and terminal alkynes under metal-organic-framework $Cu_2(BDC)_2(DABCO)$ catalysis*, published in the *Journal of Catalysis* in 2014 (Vol.319, pp.258-264). His work focuses on using a crystalline porous metal-organic framework $Cu_2(BDC)_2(DABCO)$ as a heterogeneous catalyst for the direct C-C coupling reaction via cascade methylation and C-H functionalization of *N*-methylaniline and terminal alkynes. Compounds containing propargylamine have many important applications in the fields of pharmaceutical chemistry,

agrochemicals, and functional materials. In particular, a new metabolism of *N*-methylaniline was discovered during his study, and his study was conducted entirely in Vietnam, using all Vietnamese researchers.

The 2017 Ta Quang Buu Awards Ceremony was held in Hanoi as a key part of the festivities for the Vietnam Science and Technology Day on May 18. The ceremony was celebrated under the witness of Deputy Prime Minister, Vu Duc Dam; Minister of Science and Technology, Chu Ngoc Anh; Minister of Education and Training, Phung Xuan Nha; distinguished representatives from various ministries and sectors; and scientists from all over the country. At the ceremony, the Deputy Prime Minister, Vu Duc Dam, congratulated the winners and said that this year's winning contributions had both succeeded previous years and had positive changes, including the appearance of many young scientists, amateur scientists, and startup community representatives.