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**王孝祖2學術論文躍登國際知名期刊**

**學校要聞**

【記者麥嘉儀淡水校園報導】尖端材料科學學程助理教授王孝祖，擔任共同作者之學術論文「A single-atom library for guided monometallic and concentration-complex multimetallic designs 單金屬與不同複合濃度多金屬之單原子合成方法」，獲SCI國際知名期刊《Nature Materials》刊登，影響因子47.7。另一篇擔任共同第一作者之「Bandgap Shrinkage and Charge Transfer in 2D Layered SnS2 Doped with V for Photocatalytic Efficiency Improvement 釩參雜產生二維材料二硫化錫的能隙收縮及電荷轉移來提升光催化效率」，於去年年底刊登《Small》期刊，影響因子15.2，兩篇論文皆在科學界具有非常大的影響力。
  
　本校物理系學、碩士校友王孝祖，為國立清華大學物理博士，師事物理系講座教授彭維鋒及物理系校友、前東華大學校長，中研院院士吳茂昆，與許多國際研究團隊合作。他表示，《Nature Materials》該篇論文合作學者，包括中國科學院學者、美國爾灣大學教授Huolin L. Xin，還有加拿大、美國、臺灣等學者，《Small》該篇則與印度、南非學者合作。
  
　王孝祖說明，剛獲刊登的論文是研究有關單原子的系統，該研究合成利用元素週期表中37種元素，將其單獨合成單金屬單原子，可應用在各種的催化反應，不過，相當不容易合成。此外還進行一系列開拓性研究，由原本的單金屬到成功合成出12種不同元素組成的多金屬單原子材料。「這是一個很大突破，因為我們利用同步輻射技術分析這些單原子系統的價數、鍵長、配位數、配位離子等相關數據，這些數據以後會像教科書一般讓大家據以參考，對於日後研究有非常大的幫助。」
  
　王孝祖指出，另外一篇論文則是探討二維材料在催化上的應用。當二維材料二硫化錫SnS2參雜過渡金屬釩到這個材料裡面，在層與層之間會形成獨特的四面體結構，影響其能隙與電荷轉移機制來提升光催化的效率，並與研發長薛宏中的合作，經過理論計算模擬，證實實驗上所觀察到的結果與理論相符。他表示，這次研究對於未來的綠色能源應用有非常大的突破，可藉此來提升水分解的反應速率，產生大量的氫能源加以利用。
  
Assistant Professor Hsiao-Tsu Wang of the Bachelor's Program in Advanced Materials Science, is co-author of "A single-atom library for guided monometallic and concentration-complex multimetallic designs, " published on the famous SCI academic journal 《Nature Materials》with an impact factor of 47.7. Also, he is another co-first author of "Bandgap shrinkage and charge transfer in 2D layered SnS2 doped with V for photocatalytic efficiency improvement ", this paper was published on the SCI journal《Small》at the end of last year, with an impact factor of 15.2. Both papers have a very significant contribution to the scientific community.
  
  
  
  
Hsiao-Tsu Wang is an alumnus of the Department of Physics at our school. He obtained a Ph.D. in Physics from National Tsinghua University, and was advised by Way-Faung Pong (Chair Professor of the Department of Physics, TKU), and Academician Maw-Kuen Wu (an alumnus of the Department of Physics, TKU and former President of Donghua University). He has cooperated with many international research groups. He said that the co-authors of the paper "Nature Materials", include a scholar of the Chinese Academy of Sciences, Professor Huolin L. Xin at the University of Irvine in the United States, as well as scholars of Canada, United States, and Taiwan, and the "Small" paper cooperated with India and South Africa groups.





