

國立台灣大學技術行銷表

台大案號:06A-100226 (由產學組填寫)

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產品/技術名稱	環保高效能穩焰裝置
發明人/單位	潘國隆、方爾凱/國立台灣大學
產品/技術說明	一種燃燒輔助裝置，可簡易加裝於既有燃燒爐，以加強熱傳與燃氣混合，而增進穩焰及燃燒性能。
應用範圍	適用於氣態燃料與氧化劑之燃燒爐，常見工程領域如:家用熱水器、工業界鍋爐、加熱爐、火力發電廠或航太推進器之燃燒室等。
產品/技術優勢	<ol style="list-style-type: none">1. 可充分利用燃料，增進燃燒效率，減少環境污染。2. 即使在高速下，也可輕易引燃。3. 駐留火焰，穩定燃燒，不易吹熄。
市場潛力	若能廣泛利用此燃燒裝置，可以達到高效率、低污染以及降低成本的效應，因此極具市場潛力。
產品/技術 智財權保護方式	(由技轉組填寫)

Marketing Abstract of NTU's Invention Disclosure

NTU's docket no: _____ (由技轉室填寫)

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Title	Premixing-assisted combustion device
Inventor (s)	Kuo-Long Pan and Er-Kai Fang
Brief Description	By adding a cap device on an existing burner, the combustion performance can be substantially enhanced, due to premixing-like effects which can hence stabilize flame and promote mixing of fuel and oxidizer as well as heat transfer.
Fields of Application	Applicable to burning devices using gaseous fuel and oxidizer, such as industrial burners applied to furnaces, heaters, stoves, and aerospace propulsive combustors.
Advantages	(when compared to the existing technologies) <ol style="list-style-type: none"> 1. Promote the mixing between fuel and oxidizer as well as heat transfer, and thus enhance combustion efficiency and reduce pollutants. 2. Flame can be ignited even at high velocity. 3. Stabilize the flame and prevent its quenching.
Market Potential	The device is simple and cheap. By using such an auxiliary device, combustion can be easily enhanced so as to raise the efficiency and reduce the pollution. Therefore the market potential should be promising.
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