



## Antioxidant Activity of Some Newly Synthesized Substituted Pyrenyl Pyridine Derivatives

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**SUMMARY.** Development of novel antioxidant drugs may be of great importance in banning damage to DNA, accompanied with many health problems and propagation of oxidative stress. In this study, new 2-oxo(imino)pyridine derivatives linked pyrene moiety were prepared and estimated *in vitro* for their action as antioxidant agents utilizing 1,1-diphenyl-2-picryl-hydrazyl (DPPH) radical scavenging activity technique. The data of the antioxidant screening detected that, most of the tested compounds showed considerable capacity to scavenge free radicals but with varying strengths extents. Among them compound **3e** exhibited significant antioxidant action when compared to positive standard control.

**RESUMEN.** El desarrollo de nuevos fármacos antioxidantes puede ser de gran importancia para impedir el daño al ADN, acompañado de muchos problemas de salud y la propagación del estrés oxidativo. En este estudio se prepararon nuevas moléculas de pireno unidas a derivados de 2-oxo (imino) piridina y se estimaron *in vitro* por su acción como agentes antioxidantes utilizando la técnica de actividad de barrido de radicales 1,1-difenil-2-picril-hidrazilo (DPPH). Los datos del ensayo antioxidante mostró que la mayoría de los compuestos ensayados exhibieron una capacidad considerable para limpiar radicales libres, pero con intensidades variables. Entre ellos el compuesto **3e** exhibió una acción antioxidante significativa cuando se comparó con el control estándar positivo.

**KEY WORDS:** antioxidant activity, DPPH, pyrenyl pyridine derivatives.

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