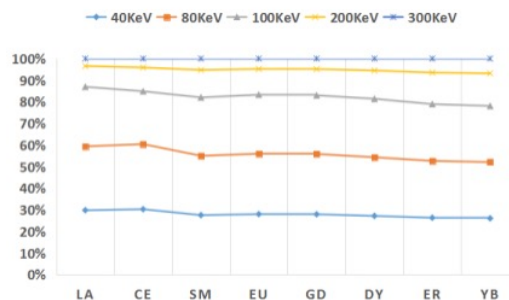


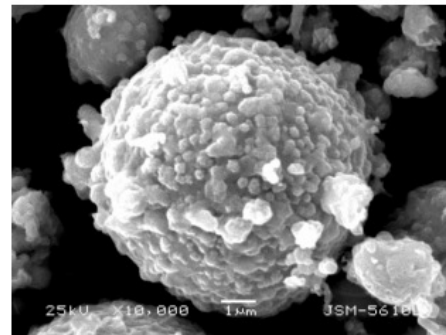
CHINA ENTERPRISES HAVE DEVELOPED HIGH-QUALITY RADIATION PROTECTION MATERIAL “BECQ”

WUHAN, HUBEI, CHINA, July 30, 2023 /EINPresswire.com/ -- Global nuclear industry development and the post-pandemic age, the new coronavirus pneumonia has left people to reflect on and demand for health, mainly health concepts, non-toxic radiation protection products, individuals demand for lead-free protective materials are increasing, shielding equipment is the development direction of the industry, lead-free protection core technology “BECQ” and extension products, together send a signal: the time has come for ionizing protection non-toxic lead!

In recent years, with the rapid development of nuclear industry in the world and the global protection industry are moving towards green environmental protection. The medical field has put forward higher requirements for lead-free and non-poisoning, and safety awareness is increasingly enhanced. More and more people attention to the research and development of non-toxic lead-free protective materials. Countries and scientific research institutions have extended their tentacles to non-toxic and harmful shielding equipment, to adopt this blue ocean. The research on lead-free green lightweight protective materials has become a key direction in the world.



Photon shielding efficiency of rare earth materials at different intensities



Surface topography of lead-free light ionizing radiation protection material



Cross-sectional view of lead-free lightweight ionizing radiation protection fiber

The United States changed the pattern and China's intense cultivation of composite shielding materials has broken the shackles of the industry.

The United States has great advantages in the development of non-toxic shielding equipment technology, whether in the material or structure of protective clothing, or in the process; the Japanese and Austrian research teams subsequently developed a radiation protection fiber, which can effectively isolate X-ray; Federal University of Russia also added special reagents to borate glass to strengthen the glass density, the radiation protection effect, more than three times higher than the similar products on the market. At present, all countries in the world pay serious attention to the operation and management of nuclear facilities to prevent nuclear accidents. Moreover, China has been groping for the development of safe and efficient nuclear power technology, and the safety issues involved in nuclear energy application have attracted increasing attention of China scientific research team.

test condition	BECQ-P	BECQ	BECQ-MPU
50KeV	-	1.5mmPb	1mmPb
75KeV	1.13mmPb	1.1mmPb	0.8mmPb
100KeV	1.42mmPb	1mmPb	0.6mmPb
150KeV	0.74mmPb	×	×
200KeV	0.57mmPb	×	×
250KeV	0.52mmPb	×	×
Comparison of specific gravity of materials (g/cm ³)	8.2	5.1	3.6
environmental pollution	NO	NO	NO
660KeV Medium energy γ-ray 137Cs	0.84mmPb (1.3mm)	×	×
1.25MeV High energy γ-ray 60Co	0.98mmPb (1.3mm)	×	×

Protective performance of lead-free lightweight ionizing radiation protective clothing

Recently, there has been a great breakthrough in China. The multi-component composite hollow structure shielding material ("BECQ") developed by SCALARE Technology Co., Ltd. in China can greatly reduce the radiation energy through the loss of electrons or photons generated by the radiation energy. According to He Liu, CEO of SCALARE Technology Co., Ltd., the ""BECQ"" material produced by his company is environmentally friendly and has little impact on the environment. Coupled with the advantages of light weight, green environmental protection runs through every detail and solves the increasingly obvious contradiction between environmental protection and economic development. Provide scientific and technological impetus for the road of green, low-carbon and sustainable development, and truly realize the harmonious coexistence between man and nature.

It is worth mentioning that the protective material and preparation technology of this material are independently realized by the local team in China. The green nano radiation protection composite material developed by China company with "BECQ" technology as the core can effectively replace lead and lead composite material, and effectively improve the radiation protection performance of the material through chemical modification of the surface and physical reinforcement of the composite material. This original lead-free, low-density, corrosion-resistant technology is not only stable in nature, but also can be used for the protection of X-rays, gamma rays and neutron rays, and its shape is adjustable.

China's ""BECQ"" technology ionizing radiation protection materials have passed the EU-RoHs,

breaking through the international technical barrier of China's non-toxic radiation protection at present, but the research and development of non-toxic radiation protection equipment and the application of radiation protection composite materials with ""BECQ"" as the core technology in the world still have a long way to go. Countries need to improve their practicality and comprehensive performance. Standardization and serialization of independent research and development products will be the focus of research by scientific research teams and experts in various countries in the future, which also makes everyone have high hopes for this technology. This new lead-free radiation protection material is very likely to become the world's advanced nuclear radiation protection material in the future. It has dual significance in standardization and internationalization of non-toxic radiation protection equipment.

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