

## عنوان مقاله:

Burst modeling of type IV high pressure storage vessel

## محل انتشار:

پنجمین کنفرانس بین المللی کامپوزیت (سال: 1395)

تعداد صفحات اصل مقاله: 2

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## خلاصه مقاله:

Composite overwrapped pressure vessels produced by filament winding process have been developed rapidly in the field of hydrogen storage. Today the current simplified models should be improved for better simulating the reality. Thus, the complex wound composite geometry and orientation are simulated using a specific ABAQUS plug-in named Wound Composite Modeler (WCM). In this study, a type IV high pressure vessel with inner volume of 2.5 L is analyzed. It is composed of three different parts: the metallic bosses made of 316L stainless steel, the polymeric liner (PA6) and the carbon fiber/epoxy composite shell. The vessel is simulated as an axisymmetric model. Finally, numerical results are compared with available experimental data in the literature

## کلمات کلیدی:

Wound composite modeler (WCM), Type IV pressure vessel, Finite element simulation, Burst pressure

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/778934>

