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Mokhtar B. Aouina* (mokhtar.aouina@jsums.edu), JSU Box 17610, Department Of Mathematics, Jackson, MS 39217. *A new argument for the exactness at the $(n+1)$ -thickening term in the C.T.C Wall's exact sequence for thickenings.*

A fundamental problem in differential topology is to enumerate the set of compact manifolds up to diffeomorphism within a given homotopy type. In 1966, C. T. C Wall in his paper "Classification problems in differential topology-IV. Thickenings" introduced the concept of thickening to address this problem. He constructed an exact sequence where he related the n -thickenings of a finite complex to its $(n+1)$ -thickenings. Wall called this exact sequence the suspension theorem. Through our investigation of that theorem, we discovered a gap in Wall's proof dealing with the exactness at the $(n+1)$ -thickening term. We will provide a new argument to fill in this gap. This is a published and joint work with J. R. Klein. (Received September 22, 2009)