

坩埚常见问题分析Analysis of Common Problems in Crucibles

问题描述Problem description	原因分析Analysis of causes
6、综合问题Synthesis problem	
1)外表的网状裂纹 The reticular cracks on the surface	1)像鳄鱼皮似的网状裂纹, 通常是因为过于陈旧, 达到坩埚的使用寿命了 Reticular cracks like crocodile skin are usually due to being too old and having reached the service life of the crucible
2)铸料熔化速度变慢 The melting speed of the casting material slows down	2)通常是因为过于陈旧, 快达到坩埚的使用寿命了 It is usually because it is too old and is approaching the service life of the crucible
3)釉面脱落 Glaze peeling off	3)一般是因为将冷却的坩埚直接放在热熔炉中加热所导致, 也可能是由于加热时升温过快所造成的 It is generally caused by directly heating the cooled crucible in a hot furnace. It might also be caused by the rapid temperature rise during heating
4)底部向上突起并且产生裂纹 The bottom protrudes upward and cracks form	4)当坩埚底部粘有焦炭或炉渣时, 如将热坩埚放置在硬的, 不平整的地面上, 会引起坩埚底部向上突起并且产生裂纹 When coke or slag adheres to the bottom of the crucible, if a hot crucible is placed on a hard and uneven ground, it will cause the bottom of the crucible to protrude upward and develop cracks
5)坩埚底部开裂 (坩埚内有较厚的金属熔渣) The bottom of the crucible is cracked (there is a relatively thick layer of metal slag inside the crucible)	5)由熔渣膨胀所致 It is caused by the expansion of slag
6)坩埚外表泛绿色并且开始软化 The surface of the crucible turned green and began to soften	6)由于长时间在1460℃以上工作 Due to working above 1460℃ for a long time
7)新坩埚的底部或下沿脱离 The bottom or lower edge of the new crucible has come off	7)坩埚受潮后快速加热所导致 It is caused by the rapid heating of the crucible after it gets damp
8)坩埚变形 Deformation of the crucible	8)坩埚不同部位在温度过度不均的情况下受热产生不均匀膨胀 不要对坩埚进行急速及不均匀加热 Uneven expansion occurs in different parts of the crucible when heated due to uneven temperature transitions. Do not heat the crucible rapidly or unevenly
9)氧化 Oxidation	9)坩埚在600℃-900℃之间的氧化气氛中被氧化 The crucible is oxidized in an oxidizing atmosphere between 600℃ and 900℃

