

### Swelling behavior of electrospun PVA nano-fibers

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It is important that PVA(Polyvinyl alcohol) nano-fibers produced by electrospinning. Due to electrospun PVA- nano-fibers have properties of PVA, such as tensile strength, flexibility, water-solubility. Thus, PVA-nano-fibers have got wide application field. And Electrospinning method as an effective way to create a nano-fiber is evaluated. In this study, PVA nano-fibers mats produced by electrospinning, heated for crystallization. And, crystrallized PVA nano-fibers mats were handled by using a mixed solvent. Mixed solvent was mixture of good solvent of PVA and poor solvent of PVA. Through this process, crystallized PVA-nano-fibers are swelling. PVA nano-fibers swelling condition that can be confirmed. We find out a role of good solvent of PVA and poor solvent of PVA in mixed solvent. In addition, effect of time and temperature was confirmed.