

**ETNOKIMIA WARNA ALAM DAN PROSES PEWARNAAN PADA  
KERAJINAN KAIN TENUN CAG-CAG DI DESA SEMBIRAN DAN  
INTEGRASINYA KE DALAM PEMBELAJARAN KIMIA**

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**ABSTRAK**

Penelitian ini bertujuan untuk mendeskripsikan dan menjelaskan pengetahuan perajin dalam menggunakan bahan pewarna alami dan proses pembuatan kain tenun *cag-cag* serta pengintegrasianya ke dalam pembelajaran kimia SMA. Pendekatan kualitatif dengan jenis penelitian etnografi digunakan dalam penelitian ini. Subjek dalam penelitian ini yaitu perajin kain tenun *cag-cag*, sedangkan objek dalam penelitiannya yaitu pengetahuan etnokimia perajin kain terkait dengan bahan pewarna alami dan proses pembuatan kain tenun *cag-cag* khas Desa Sembiran. Pengumpulan data dilakukan melalui observasi, wawancara, studi dokumentasi, dan studi literatur. Teknik pemeriksaan keabsahan data dilakukan dengan triangulasi teknik dan *member check*. Hasil penelitian menunjukkan bahwa perajin kain tenun *cag-cag* khas Desa Sembiran memiliki pengetahuan yang sangat baik terkait dengan bahan pewarna alami yang digunakan dalam proses pembuatan kain tenun *cag-cag*, di antaranya adalah serabut kelapa (warna coklat), kayu secang (warna merah muda), daun mangga (warna hijau kekuningan), kunyit (warna kuning), serta daun suji dan daun pandan (warna hijau). Perajin kain tenun *cag-cag* di Desa Sembiran juga memiliki pengetahuan yang cukup baik terkait proses pembuatan kain tenun *cag-cag* dengan penggunaan bahan pewarna alami yang proses pembuatannya meliputi pengolahan benang sebelum diwarna, pewarnaan, fiksasi, dan pengeringan. Pengetahuan etnokimia dalam proses pembuatan kain tenun *cag-cag* dapat diintegrasikan ke dalam beberapa materi kimia SMA, misalnya pada materi peran kimia dalam kehidupan, ikatan kimia, indikator asam basa, dan senyawa karbon.

**Kata Kunci:** Kain tenun *cag-cag*, etnokimia, bahan pewarna alami, Desa Sembiran

**ETHNOCHEMISTRY OF NATURAL COLORS AND DYEING  
PROCESSES IN CAG-CAG WOVEN FABRIC CRAFTS IN SEMBIRAN  
VILLAGE AND ITS INTEGRATION INTO CHEMISTRY LEARNING**

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**ABSTRACT**

*This research aims to describe and explain the knowledge of craftsmen in using natural dyes and the process of making cag-cag woven cloth and its integration into high school chemistry learning. A qualitative approach with ethnographic research type was used in this research. The subjects in this research are cag-cag woven cloth craftsmen, while the object of the research is the ethnochemical knowledge of cloth craftsmen related to natural dyes and the process of making cag-cag woven cloth typical of Sembiran Village. Data collection was carried out through observation, interviews, documentation studies and literature studies. Data validity checking techniques are carried out using technical triangulation and member checks. The results of the research show that the cag-cag woven cloth craftsmen typical of Sembiran Village have very good knowledge regarding the natural dyes used in the process of making cag-cag woven cloth, including coconut fiber (brown), secang wood (red), mango leaves (yellowish green), turmeric (yellow), suji leaves, pandan leaves (green). Cag-cag woven cloth craftsmen in Sembiran Village also have quite good knowledge regarding the process of making cag-cag woven cloth using natural dyes, the manufacturing process of which includes thread processing before dyeing, coloring, fixation and drying. Ethnochemical knowledge in the process of making cag-cag woven cloth can be integrated into several high school chemistry materials, for example on the role of chemistry in life, chemical bonds, acid-base indicators, and carbon compounds.*

**Keywords:** cag-cag woven fabric, ethnochemistry, natural dyes, Sembiran Village