hence of the minimal subvalued primes) remains the same. Suppose that y_i are permuted such that, x_k, y_k are in the same minimal subvalued prime q, then $x_k \mid (y_k^r, x) = (y_k, y_1 y_2 \ldots y_m) = y_k$ that is $x_k \mid y_k$, and similarly we can show that $y_k \mid x_k$. I.e. for each packet $x_k \mid x = x_1 x_2 \ldots x_n$ there exists its associate $y_k \mid x = y_1 y_2 \ldots y_m$ which is the required result.

Corollary 1. In an HCF *-GKD a packet is rigid and hence an HCF *-GKD is a Semirigid Domain.

Proof. We recall that a *GKD R is a ring of Krull type with the family $\{P_{\alpha}\}_{\alpha \in I}$ of primes defining it, such that for $\alpha \neq \beta \in I$, $P_\alpha \cap P_\beta$ contains no non zero prime ideal(cf Def.3 Ch. 2, and Def.3 of this chapter).

Let q be a packet in the HCF *-GKD R and let Q be the minimal subvalued prime containing q(it can be easily deduced from Lemmas 2 and 3 that in an HCF ring of Krull type an element x is a packet iff it has a single minimal subvalued prime), then q is contained in a single valued prime P of R(because of *3 of Def.3, Ch. 2). And obviously every non unit factor of q is in P (since otherwise q will not be in a single minimal subvalued prime e.g. if $q \in P \neq P'$ with no containment relation between P and P'; P' contains a minimal subvalued prime Q' of q such that $Q \neq Q'$).

Now let q_1, q_2 be two non unit factors of q then $q_1, q_2 \in P$. We claim that $(q_1, q_2) \neq 1$ for if $(q_1, q_2) = 1$ in R then since R is an HCF domain $(q_1, q_2) = 1$ in R_P i.e. at least one of q_1, q_2 is a unit in R_P which in other words means that at least one of q_1, q_2 is not in P a contradiction implying that no two non unit factors of q are co-prime. We now take any two non unit factors q', q'' of q and